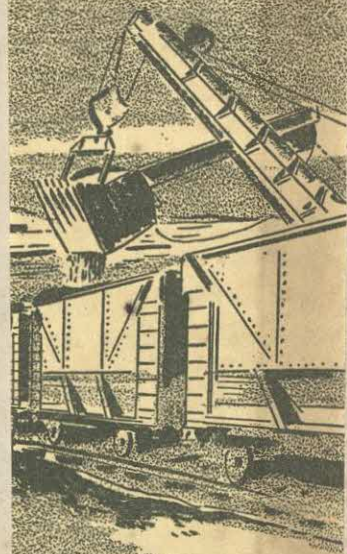
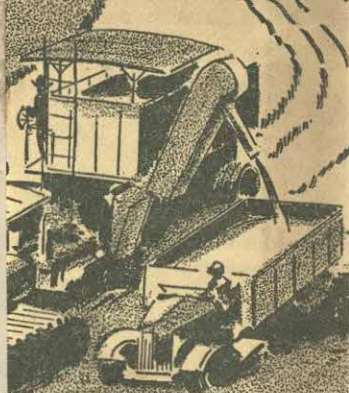
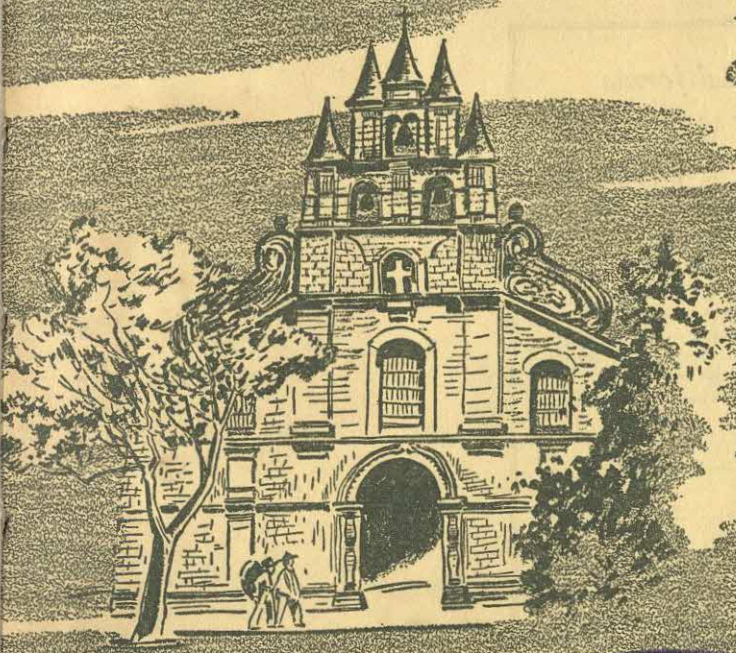


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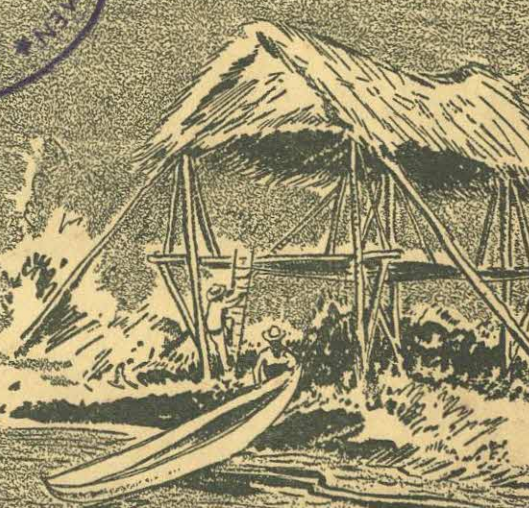
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3. In case of failure to comply with the above regulations, the pupil may be suspended from school until the loss or damage is properly adjusted.

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ROUTE OF EDUCATION FOR WOMEN
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● It is the duty of teachers to encourage and enforce these provisions.

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OUR AMERICAN NEIGHBORS



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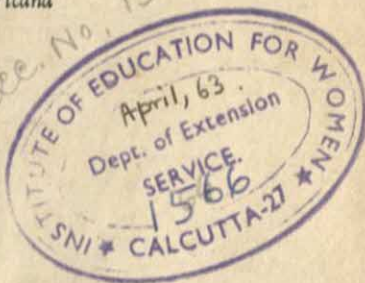
UNIFIED SOCIAL STUDIES

CALIFORNIA STATE SERIES

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Foreword

OUR AMERICAN NEIGHBORS describes a journey through the regions south, north, and west of us—Latin America, Canada, Alaska, and the lands across the Pacific. By bus, train, airplane, and boat a group of boys and girls travel from place to place—seeing with their own eyes how people live, work, travel, and play. Thus, the environment, the customs, and the very language of the people become real parts of the readers' experience.

The trip is used to help make more real and therefore more interesting the important truths, facts, and principles of geography and history. From the incidents of the journey and from the stories told by the guides, history is made to live again in its original geographical setting.

This book—like its companion volumes, *THE OLD WORLD AND ITS GIFTS* and *THE NEW WORLD AND ITS GROWTH*—is a unified social studies text. It drops the conventional lines between geography and history and weaves the two subjects into one integrated whole. It stresses the fact that the story of the growth of civilization, which is history, takes place in a geographic setting. Pupils soon discover that such environmental factors as climate and fertility of soil, harbors and rivers, mountains and valleys, natural resources and their accessibility have from the very beginning helped to determine the history of nations and to control the lives of men and women and of boys and girls. When geography and history are thus integrated, each gives new richness and meaning to the other.

The material of this book is carefully organized into units. Within each unit the material is organized around major problems indicated by means of boldface questions. The search for solutions to these problems in the text and the illustrations leads the pupils to formulate for themselves the major "understandings."

Each unit ends with a program of interesting activities. The first part of the program is designed to aid the pupil in *gaining* the "understandings." The second part consists of activities to *enrich* these "understandings." The third provides practice in *applying* the new knowledge gained from the unit. The fourth part of the program includes activities planned to stimulate pupils to formulate *sound opinions* and *attitudes* about the issues raised or suggested by the text. Each activity has been included for a definite purpose.

Teachers will find that language difficulties have been reduced to a minimum in this book. Extensive tests have shown that the vocabulary is ideally suited to the intermediate grades. The simplicity of the style, the care with which the language has been chosen, and the vividness of the examples remove barriers that might hamper or delay the pupil in his comprehension of the subject matter. Difficult words have been phoneticized both in the text and in the index. In this way the pupil learns to pronounce a word or name the first time he encounters it in the text. A key to the pronunciations is given at the beginning of the index.

Teachers will find the unusual series of product maps and colored physical maps very valuable. They have been made as simple and as clear as is consistent with complete accuracy. Diagrams and drawings, well within the ability of the pupil to understand, have been used where they will help to clarify difficult concepts.

Another feature that will be welcomed by teachers is the extensive bibliography conveniently placed at the end of the book. This bibliography lists the best of recent literature about these countries suitable for intermediate-grade readers.

THE AUTHORS

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Our American Neighbors

In a world of telephones, steamships, and airplanes, the peoples of all countries are our neighbors. This book will help us to become better acquainted with the lands and peoples who are our neighbors on the south, north, and west.



OUR SOUTHERN NEIGHBORS

First we shall learn about our Good Neighbors of Latin America. They are the people living "south of the border"—in Mexico, in the islands of the West Indies, and in the countries of Central and South America. These regions of the world are so interesting that it is going to be fun to read about them. Although our southern neighbors are different from us in many ways, we shall find most of them very much like ourselves in all the ways that really count.



OUR NORTHERN NEIGHBORS

Next we shall make ourselves at home among the friendly peoples north of the border—in Canada, Newfoundland, Iceland, Greenland, and our own territory of Alaska. These countries have recently become very important to us.



OUR PACIFIC NEIGHBORS

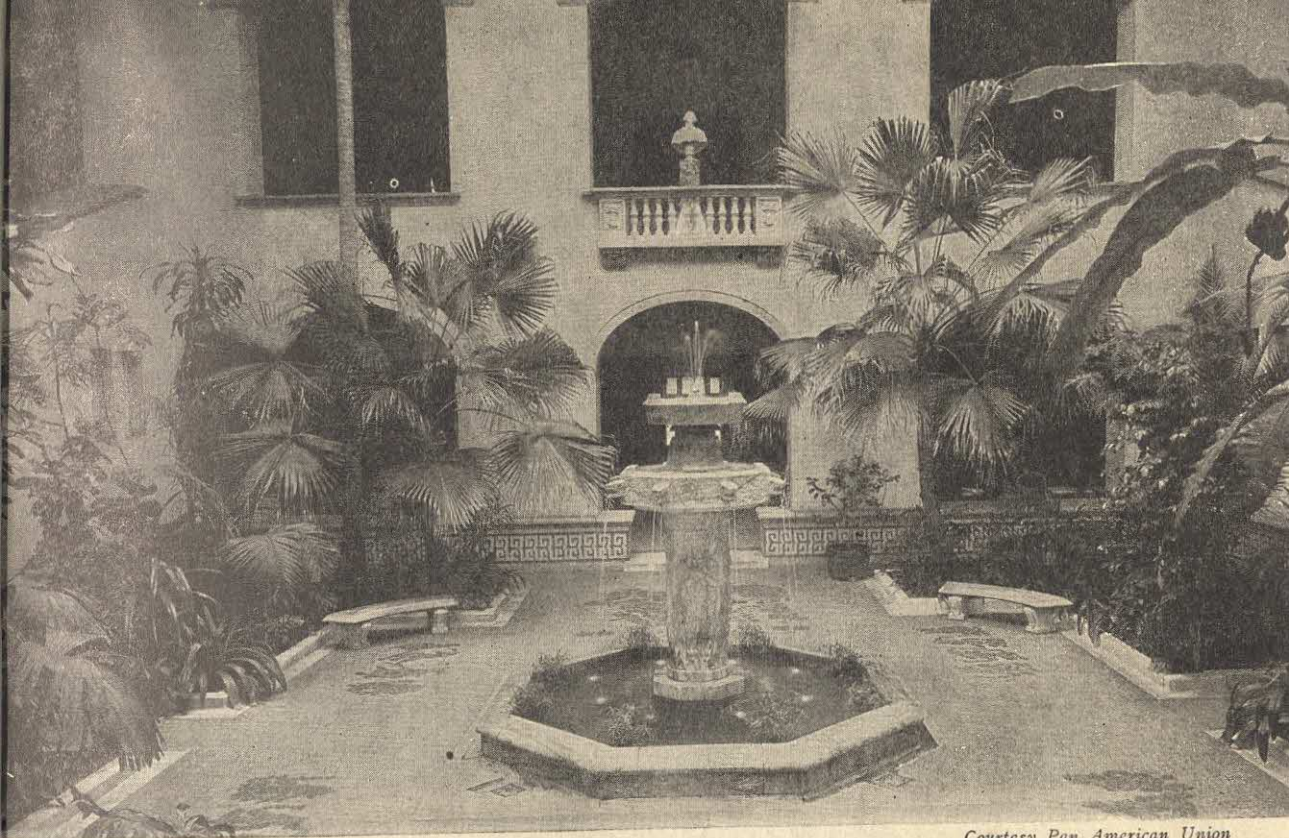
Finally, we shall study about the many interesting peoples who inhabit the islands of the Pacific and the countries bordering it on the west—the Hawaiian Islands, New Zealand, Australia, the East Indies, and the Philippine Islands. These are our neighbors across the western sea.

OUR
SOUTHERN
NEIGHBORS



Courtesy Pan American Union

The Pan American Union Building in Washington, D. C., was the starting point of a 20,000' mile journey through Latin America. This trip by bus and boat, train and plane, oxcart and burro-back gave our party a new appreciation of our neighbors beyond the Rio Grande. It was fitting that the journey should have started from this building, for it stands as a symbol of the friendship that exists between "our southern neighbors" and our own country.



Courtesy Pan American Union

Most of the time this lovely glass-roofed patio of the Pan American Union is thronged with visitors from all over the world. Its beautiful palms, banana trees, coffee plants, and Aztec fountain are similar to what one might find in the garden of a Latin-American neighbor.

1. Good Neighbors of Pan America

Our bus swings into a broad driveway and rolls to a stop before a magnificent building of gleaming white marble. Leaving the car, we walk up a flight of steps between two statues, one of which bears the words "North America," the other "South America."

Inside the wide doorway we stop in sudden surprise. In all of Washington, D. C., we have seen nothing like this. Before our eyes appears a beautiful indoor garden, with bubbling fountain, brilliantly colored birds, and myriads of tropical flowers.

As we stand admiring this beautiful scene, a tall olive-skinned gentleman greets us with these words:

"Welcome to the Pan American Union! May I have the pleasure of acting as your guide through our building?"

Of course we answer, "Yes." Our guide then leads us along a path through the beautiful garden. On all sides are tropical plants—coffee trees, soaring palms, banana plants, and gigantic rich ferns. The brilliantly colored birds which caught our eye from the distance turn out to be parrots and macaws.

In the center of the garden, or *patio* (pă'ti-ō), is a lovely fountain. But what surprises us most is the roof. As we look up, we see that it is made entirely of glass. And then to our greater surprise the roof begins to slide away, letting us look straight up into the clear blue sky. The patio roof, says our guide, is kept closed during cool nights and in winter, but is opened during the warm days of summer.

We circle around the fountain and then walk up a wide marble staircase to a balcony overlooking the patio. As we stand there, our guide tells us the use to which this beautiful building is put.

Many years ago leaders in our own and other countries of the New World decided that it should be possible for the nations of the Western Hemisphere to live together in perpetual peace and friendship. So, in 1890, a number of the republics in the Western Hemisphere formed a league, which they named the Pan American Union. This majestic building in the heart of Washington, D. C., is the home of the Union.

How does the Pan American Union serve the American Republics? As we follow our guide through the building, he points out the offices of many busy workers. One man is gathering information for a scientist about to make some explorations in the far-off Andes Mountains. Another is helping a group of tourists plan their route of travel through Central America. Still others are preparing various booklets and magazines for publication in English, Spanish, and Portuguese. These provide useful information on literature, art, business, health, science, agriculture, and educa-

tion in the Pan American countries. Thus, the peoples of the Western Hemisphere become better acquainted.

We see a postal expert drafting new parcel-post regulations to be submitted to the legislatures of various Pan American countries. Another man is preparing new rules for commercial aviation in the Western Hemisphere. Thus, the nations solve their problems together!

We enter a magnificent hall—the *Hall of the Americas*—where many important conferences take place. Concerts of Latin-American music are often given here and broadcast by short wave to all the countries below the Rio Grande.

Adjoining the Hall of the Americas, is the room in which meetings of the Governing Board are held. Around a huge mahogany table stand twenty-one high-backed chairs, one for each of the republics of the Americas. Every chair bears the coat of arms of its country.

What countries are members of the Pan American Union? When one of us asks our guide this question, he leads us into a large room on the ground floor. The first object that meets our eyes is a huge relief map spread over a broad table. As we gather around this map, the guide points out that it represents all of the Western Hemisphere south of the Rio Grande. It therefore includes all the countries belonging to the Pan American Union, except the United States.

We count the various countries on this map and find there are more than twenty. We learn that some of the lands below the Rio Grande are not self-governing republics, but belong to certain nations of Europe. Our guide starts asking us questions. What are the names of the



Courtesy Pan American Union

Soaring columns and great crystal chandeliers decorate the Hall of the Americas. No part of the Pan American Union Building is more impressive than this hall. It measures 100 feet long and 70 feet wide and is used for concerts, balls, and important inter-American conferences. At times the end of this hall is a riot of color with the flags of the twenty-one American republics.

twenty-one Pan American republics? How many of them are in North America? How many are in South America? How many border the Caribbean Sea? What are the three island republics? What countries and islands are possessions of European nations?

What name is frequently given to the regions south of the Rio Grande? We notice that our guide sometimes uses the term "Latin America." He explains that the first white men to settle in these southern lands were Spaniards and Portuguese. These people spoke languages that formerly came from the Latin language of the ancient Romans. In the Old World the Spanish and Portuguese are frequently called "Latins." In the New

World the descendants of the Spanish and the Portuguese settlers are called *Latin Americans*, and the regions which they occupy make up Latin America.

In what temperature belts is Latin America? We know that some parts of the earth are always warm. In some parts the weather is always cold. Some parts are cold in winter and warm in summer. The map on page 4 shows how the earth can be divided into different temperature belts, or regions.

What is the equatorial belt? On the surface of the globe, halfway between the poles, you see a line. It is marked "equator." The regions near the equator, on both sides, are always warm because there the hot rays of the sun fall almost



POLAR REGION
REGION OF
CHANGING TEMPERATURES
EQUATORIAL REGION
REGION OF
CHANGING TEMPERATURES
POLAR REGION



The polar regions are always cold because the sun's rays are slanting. The equatorial region is always hot. Here the sun's rays shine straight down, or nearly so. Between the polar and equatorial regions are the regions of changing temperatures, which have cold winters and hot summers. There is no exact line of division showing where one region begins and another ends.

straight down on the earth. We call this the *equatorial belt*. Can you see how it got its name? Here the days are hot throughout the year. There is never a winter season. Snow never falls except in the highest mountains. There are some places in the Andes Mountains where snow can be seen the year round. Notice how much of Latin America lies in this hot region.

What are the polar regions? Around the poles it is cold all of the time because the sun's rays are always slanting. In the lands nearest the North Pole only a few people and a few kinds of animals and plants can survive. Does the map show that any part of Latin America lies in the southern polar region?

What are the belts between the polar and equatorial regions called? Between the cold polar regions and the warm equatorial regions there are two broad belts which are hot in the summer and cold in the winter. They used to be called the temperate zones. But temperate means moderate—not very hot or very cold. Because we live in one of these regions, we know that it sometimes does

get very hot and very cold. So temperate is not a good name. We shall call these belts the *regions of changing temperatures*. These regions have a cold season and a warm season. Most of the people of the world live in the regions of changing temperatures.

In which region of changing temperatures is part of South America? In which one is most of our own country? Which of these regions of changing temperatures receives more heat from the sun from March to September? From September to March?

Why is Latin America called a land of contrasts? Can you picture a place so dry that no rain falls for years on end? Can you picture a place so wet that 135 inches of rainfall have been recorded in a single stretch of only eight days? Both of these places exist, and both are in Latin America. In the great Atacama (ä'tä·kä'mä) Desert in Chile, the miners must have their water brought to them in tank cars from the mountains. Rain is almost unknown in this region. In one part of the Caribbean island of Jamaica the rainfall at certain seasons of the year is so heavy

that one downpour of a single week would drown the region under ten to twelve feet of water, if it did not drain off almost as rapidly as it fell.

Not a trace of plant life can be found in the Atacama Desert, but in the wetter parts of Jamaica neglected fields turn into dense jungles almost overnight.

In Latin America are some of the highest mountains of the world, the soaring snow-capped Andes. On these mountains many people have become accustomed to living and working at altitudes of more than 16,000 feet. Airplane pilots and passengers in our own country find it necessary to use oxygen masks when flying at such high altitudes. But not the Andes Mountain people. Centuries of continuous living at high altitudes has adapted them to their thin atmosphere.

Not far from the Andes are the great lowlands of the Amazon River. Here is an area nearly as large as the United States, but so low that thousands of square miles stand under water for several months of every year!

We find other contrasts in Latin America. Brazil, the largest country, is greater in size than the entire United States, while El Salvador (ĕl sāl'vā·dōr'), one of the smaller countries, is about one third the size of our state of Indiana. A few parts of Latin America are densely populated. But hundreds of square miles have never felt the footsteps of man. Latin America is almost three times the size of the United States, but its population is only about equal to that of our country.

Some of the people in Latin America live in grass huts in the midst of vast jungles, while others live in modern sky-



James Sawders

In some places in Latin America only a few miles separate the frigid, snow-clad peaks from the hot, damp jungles. Most of the people, however, live between the peaks and the jungles.

Ewing Galloway



scraper apartments in great cities. Some eat only such foods as grow wild in the surrounding jungles, while others dine on delicacies gathered from every corner of the globe. Some travel by burro or dug-out canoe; others ride on streamline trains and in airplanes.

In Latin America are some of the most beautiful and modern cities in the entire world. There are also ruins of some of the world's earliest civilizations. We are likely to think of our southern neighbors as being younger than the United States. And so they are in many ways. But in other ways they are much older. Latin America could boast of great cities, beautiful churches, fine universities, and busy printing presses long before the first successful English colony was planted in what is now the United States.

Our guide now turns away from the map, smiles, and says:

No two countries in Latin America are alike. The land is different. The people are different. The products of the fields, forests, and mines are different. And even in the same country there are many contrasts. There may be every kind of building from modern skyscrapers to palm-thatched huts. There may be both airplanes and burros for transportation, tractors and ox teams for farming. There may be fashions ranging from ancient Indian garb to Hollywood's latest.

James Sawders



"Well, this just about concludes our tour of the Pan American Union Building. Before you go, perhaps you would like to visit the Aztec garden at the rear.

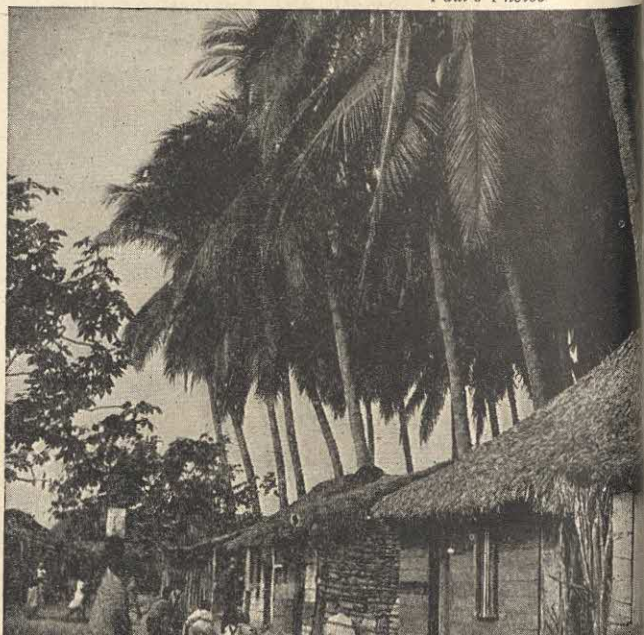
"I hope that you have had an interesting and profitable visit and will come back to see us again. Remember—Pan means 'all' and the Pan American Union is a union of *all* the republics of the New World. It is here to serve the people of *all* the Americas. If it is possible for us to help you in your studies, we want you to feel free to call on us."

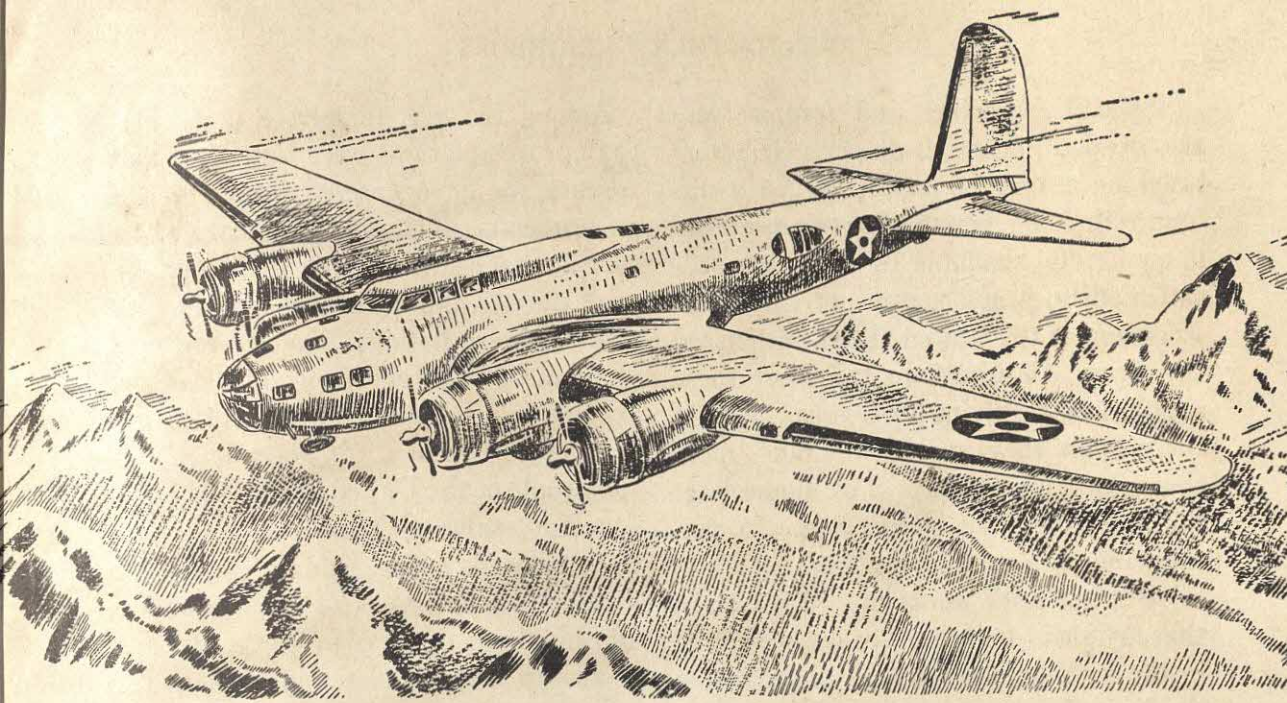
We try to thank our guide for his kindness, but he only smiles and shakes his head.

"Do not mention it. I only wanted to be a good neighbor, just as the people of your country have been good neighbors to my people and to me."

When we ask him what he means, he tells us a story.

Paul's Photos





The Flying Fortress roared across endless miles of sea, over Panama, over green jungle, lifeless desert, and snow-clad mountains. Ever south it flew on its mission of mercy.

A GOOD NEIGHBOR STORY

"A few years ago I was in New York on a business trip. Late one evening I was listening to a short-wave radio broadcast from my native land — faraway Chile. Suddenly the broadcast stopped. I decided that unfavorable atmospheric conditions had interrupted the program.

"Half an hour later, as I was listening to a news broadcast from one of the local New York stations, an excited voice broke in with this announcement: 'We are interrupting this broadcast to bring you a special news flash. Reports have just been received of a violent earthquake which has destroyed two cities in Chile. There is no information as yet on the full extent of the catastrophe, but it is feared that thousands of lives have been lost and millions of dollars of damage done to property.'

"I could hardly believe my ears. One of these two cities was my home. My father, mother, and younger sister were living there. Had they been among those killed or injured?

"I stayed by my radio all through the night eagerly waiting for further news. Hourly reports kept me informed of what was being done to meet the emergency. The government placed the region under martial law. The Chilean Red Cross sent trainloads of doctors and nurses into the devastated region. The President of Chile appealed to the people of the United States for any assistance they could give. Within a few hours the American Red Cross had mobilized to help. From every corner of the United States donations poured in. Rich and poor alike were eager to help my country.

"Special medicines and serums were also needed to combat diseases that were breaking out in the region. When it was found that no commercial planes were immediately available to carry the special medicines and serums to Chile, the President of the United States authorized the Army Air Corps to transport these supplies in its 'flying fortresses.' Within forty hours they arrived in Chile—more than 4,000 miles away. Two hours later the medicines and serums were in use, relieving pain and saving lives.

"But not until weeks later did I learn that my sister had been seriously injured in the earthquake and that serums from the United States had helped to save her life. So you see," our guide concludes, "anything I can do for you is but small payment for what the people of your country have done for me. Your President has said many times that the United States and Latin America should be good neighbors. The earthquake was one of the things that have shown my people how fine it is to have good neighbors."

What is the policy of our government toward the nations of Latin America? As we listen to this interesting story, we begin to understand the need and importance of the *Good Neighbor Policy* which our national government has been following in recent years. We have not always been good neighbors to the nations of Latin America. Many times in our past we have done things which caused them to fear and dislike us. For that reason we have not found it easy to win back their friendship. But by our prompt assistance in times of distress and by many other acts of good will, we are gradually proving our genuine friendship.

Among the acts that have done most to improve relations have been the trade treaties we have entered into with the governments of Latin America. These treaties have lowered the tariffs, or import duties, and increased the flow of trade between nations. For it is not only in times of disaster that good neighbors are needed; they can be helpful to one another at all times. As good neighbors, the people of the United States and Latin America exchange their products. Our country needs coffee, rubber, tin, certain kinds of wood, cacao (kă·kă'ō), quinine, and hundreds of other products of Latin America's farms, mines, and forests. The people of Latin America use farm implements, road-building equipment, mining machinery, locomotives, automobiles, tools, paper, and many other products of our factories.

To be good neighbors we must not only exchange goods; we must know more about each other. In recent years we people of the United States have sought in various ways to bring about a better understanding of the lands and peoples south of the Rio Grande.

What are we doing to become better acquainted with our Latin-American neighbors? Hundreds of thousands of our people are studying the Spanish language. Our tourists are filling the highways into Mexico. Many of our students are taking courses in the great universities of Mexico and South America.

We are also doing everything possible to help the people of Latin America understand us. Short-wave radio is carrying them our music and plays. We are publishing magazines, books, and pamphlets about our country for distribution

OUR SOUTHERN NEIGHBORS

Latin America includes some of the most fascinating regions of the world. Next to actually traveling through these regions, there are few pleasures greater than reading about the interesting experiences others have had there. In this book we shall follow the adventures of a group traveling through the countries below the Rio Grande. They start from Washington and speed over the Pan American Highway through Mexico, seeing the picturesque cowboys of the northern plains, the famous cathedrals and ancient ruins of the Central Plateau. They continue past the volcanoes of mountainous Central America and through the coffee and banana plantations of the lower altitudes. In South America they see the towering Andes, the lonely deserts, the vast jungles, and the rich pampas. Last of all they fly over the island defenses which guard the approaches to the Caribbean and the Panama Canal.



A COLLECTION OF STAMPS FROM OUR SOUTHERN NEIGHBORS

It's fun to collect stamps, for each one tells a story. On this page are a few of the stamps from our Latin-American neighbors. See how each one helps to tell the story of a country. The stamp of Mexico, for instance, pictures one of the huge pyramids built by an ancient Indian race that lived in Mexico before the coming of the white man. The stamp of Brazil shows her most important crop. The Republic of Panama honors the building of the Panama Canal. Notice how some of the stamps tell of the geography of a country. Others picture famous incidents in history or national heroes.

among our southern neighbors. Our government is loaning them money and skilled technicians to help develop their industries. The American Red Cross has a wonderful program whereby school children of the United States may correspond with school children of these lands, and thus become better acquainted with our southern neighbors.

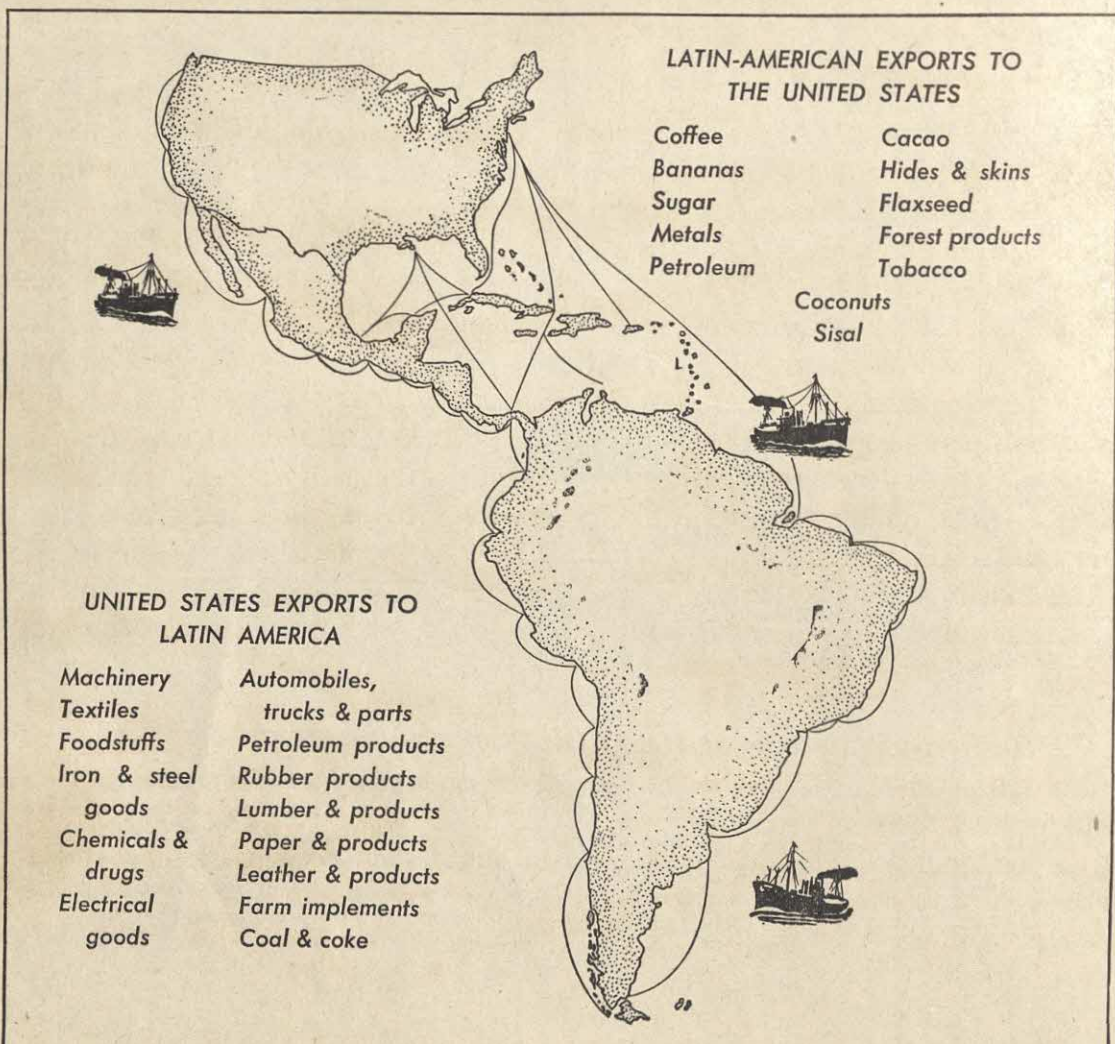
Southward bound. Our visit to the Pan American Union has given us but a glimpse of the many interesting things to be learned about Latin America. It

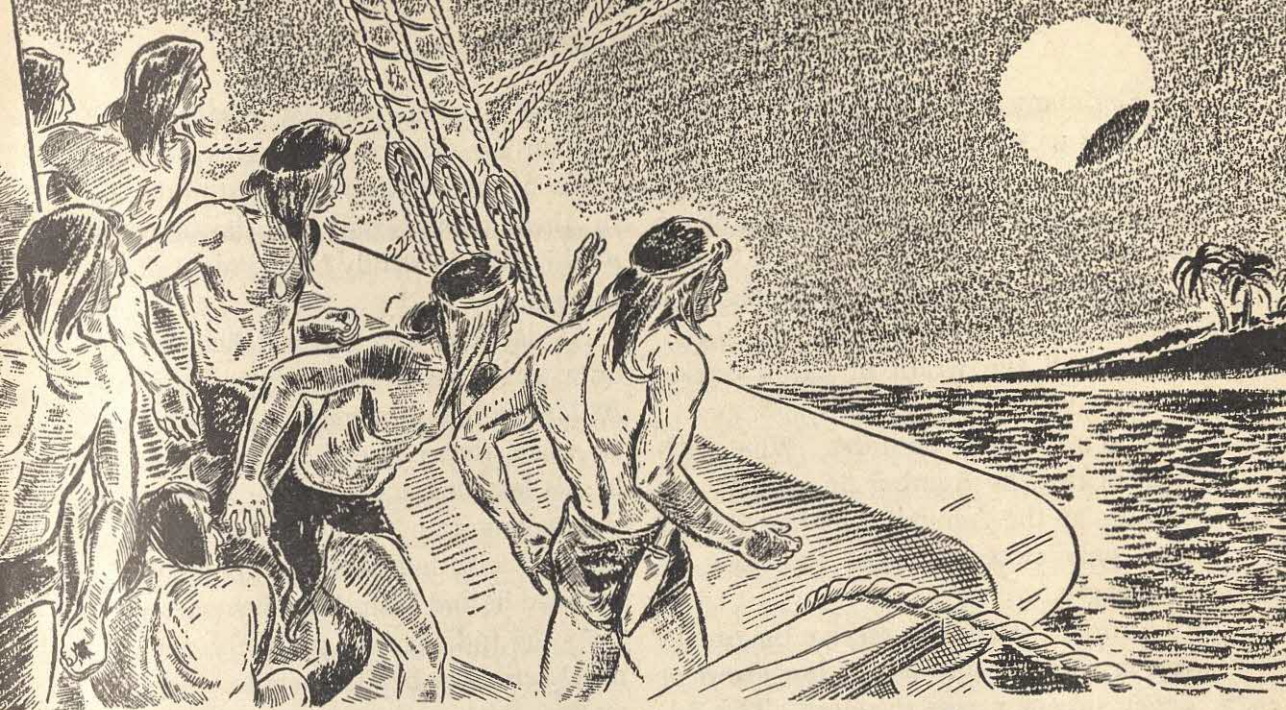
has made us more eager than ever to see these lands.

And so we leave Washington and head southwestward to Laredo (lă-ră'dō), Texas. There we shall cross the border into Mexico, the nearest of our southern neighbors.

As our bus speeds along, we hear many interesting stories of Latin America. One of the best stories is about a certain Admiral and a trick which he used to obtain food for his men. This story happened over 400 years ago.

From this chart we can see that the Latin-American countries need the products of our many factories. We in turn need the products of tropical Latin America's fields, forests, and mines. Make a list of the products of your state that might be exported to Latin America. What products of Latin America do you use in your home?





Terror-stricken, the Indians watch the dark shadow creep across the moon.

THE STORY OF THE ADMIRAL AND THE ECLIPSE

The night is dark. A gentle breeze rustles softly through the palms along the water's edge. Little waves lap, lap against the unseen hulls of two battered ships stranded offshore.

Faintly comes a mumble of voices from the deck of one of the ships. Then an exclamation of relief echoes over the water as a pinprick of light breaks from the distant woods. The light grows brighter. Another appears, and then another, and another.

The Indian chiefs have come. Slowly the warriors advance to the water's edge. Torches cast an eerie gleam across the little harbor.

They light up the two ancient ships a bowshot from shore. The ships lie low in the water, their riddled hulls resting on the harbor floor. They lean together to keep each other from capsizing, their sailing days forever ended.

Canoes along the shore fill quickly, muscled arms shoot the tiny craft swiftly toward the ships. With great dignity the chiefs climb aboard, followed by their warriors. Their bronze bodies, naked but for loin cloths, glisten in the torchlight.

An Admiral, the commander of the ships, gravely greets each chief through his Indian interpreter. He bids them be seated on the narrow deck. The chiefs are sullen, half-defiant, half-afraid.

But the Admiral had expected this. Behind him are his sailors — quiet, thoughtful, and well armed. The Admiral begins to speak:

"We Christians who visit your land have a God whose home is in the heavens above. He is All Powerful. Daily the sun does His bidding. At night the moon and the stars follow their courses under His watchful eye. None of His people can suffer misfortune without His knowledge.

"For many days now you have refused to bring us food, though we barter with you fairly. For many days you have neglected our wants, and the God of the Christians is angry.

"So this very night He has chosen to banish from the sky your moon-god. Thus shall the wrath of the Christian God be visited upon you."

The interpreter hesitates. What foolishness can the Admiral be saying? He glances at the Admiral, but the sick old man only closes his eyes and nods reassuringly.

At first, the Indians receive the prophecy in silence. But soon a low growl of anger sweeps across the deck. The Admiral waits a moment, and then continues:

"Threats shall avail you not. And I beg you to make your peace before it is too late."

The Indians are silent. A few of the lesser chiefs glance apprehensively at the sky. But the others are calm and shake their heads as if to say: "We shall

soon see if this prophecy comes true."

Soon the eastern sky begins to glow. Some of the Admiral's men are quaking in their boots. Will his daring trick work? Will this truly be the night of the eclipse?

All day long they had watched the Admiral cover sheets of paper with figures. At last he had announced the very hour on which the eclipse was due. It would be his last desperate chance to frighten the Indians into supplying his little expedition with much-needed food. Without food he and his men must soon perish.

As the Indians wait patiently, the Admiral retires to his little cabin. Tobacco smoke, thick and pungent, rolls across the deck. The waves slap against the ship's sides—the only sound to break the deep silence of the night.

Suddenly there is a shout. The moon has risen, sending a long streak of brilliance across the water. Higher and higher it goes. A few of the Indians make scornful remarks. The white man's God holds no power over the King of Night!

But then a strange silence slowly settles over the crowded ship. The moon is growing dark along one of its edges. Bit by bit a terrible, invisible monster is devouring it. The Indians become suddenly stricken with horror. What manner of man is this who foretells the secrets of his God?

The Admiral is summoned to the deck. The terrified natives promise food, supplies, everything at their command, if only the moon be returned to the sky.

The Admiral shakes his head. The



With his drawing compass in hand, the Admiral calculates the exact hour of the eclipse.

chiefs plead more desperately, their voices barely audible above the cries of their panic-stricken warriors.

Finally the Admiral raises his hand and begins to speak. He will talk to the God of the Christians. Perhaps when He learns of the promise of the Indians to bring the goods and supplies needed by the white men, He will consent to return the moon to its place in the sky.

Again the Admiral retires to his cabin, where he calculates the moment the eclipse is due to end. Just as the earth's shadow is beginning its departure from the face of the moon, he returns to the deck. Confidently he announces that the moon will be given back to them.

The Indians, still all atremble, intently watch the black shadow. Suddenly they raise a cry of joy. A great shout echoes across the little bay. Slowly but surely, the shadow of death is leaving the moon.

Little by little the brilliant orb comes back into view. The joyous Indians drop into their canoes, eagerly repeating their promise to return at daybreak with food and supplies.

The Admiral passes a hand across his brow and gives silent thanks for the almanac that has thus enabled him to make of the eclipse a means of escape from slow starvation. His men joyfully slap one another's backs and dance a merry jig on the moldering decks. The trick has worked. The almanac and the Admiral's calculations have saved the day. Now they are assured of food enough to keep them alive until they can be rescued from this accursed island of Jamaica and be brought safely home.

The hero of this true story was Christopher Columbus. This exciting episode in his life took place on his fourth and last voyage to America.

EXPLORING THE AMERICAS

What brought Columbus and later Spanish explorers to America? Everyone knows the story of Columbus' first voyage and of the bitter years during which he had tried in vain to interest the monarchs of Europe in his plans for

exploring a new water route to the riches of India. He firmly believed that the earth was round and that, by sailing boldly across the western ocean, ships could reach the fabulously wealthy lands of the East.

The Spanish explorers set foot on the shores of the New World in a spirit of great hope. Here was the East, they thought. Here was the land of spices. Here were riches to reward men for the most daring voyage ever made. Furthest from their minds was the thought that here was a new world. Little did they dream of having to struggle for their lives with the inhabitants of this land, or that the climate itself would oppose them.

Courtesy The Gilbert Paper Company



In 1492 the monarchs of Spain, Ferdinand and Isabella, finally consented to support his plan; and by late summer of that year he set forth in three frail ships upon the most fruitful voyage in all history—the voyage that led to the discovery of a new world.

When Columbus found land and saw that it was inhabited by a race of dark-skinned people unlike any he had ever seen before, he felt sure that he was near the coast of India. For that reason he called the natives *Indians*, the name by which they have been known ever since.

Although Columbus brought back from his voyage none of the riches he had expected to find, everyone believed that another voyage would be more successful. It had been very difficult to get men and ships for his first expedition. But it was not difficult now. Everyone seemed eager to risk any danger and hardship in the hope of sharing in the promised riches.

In 1493 his second voyage to the New World began. It included seventeen ships and about 1,500 persons, together with the horses, cattle, hogs, chickens, seeds, and tools needed to found a permanent settlement.

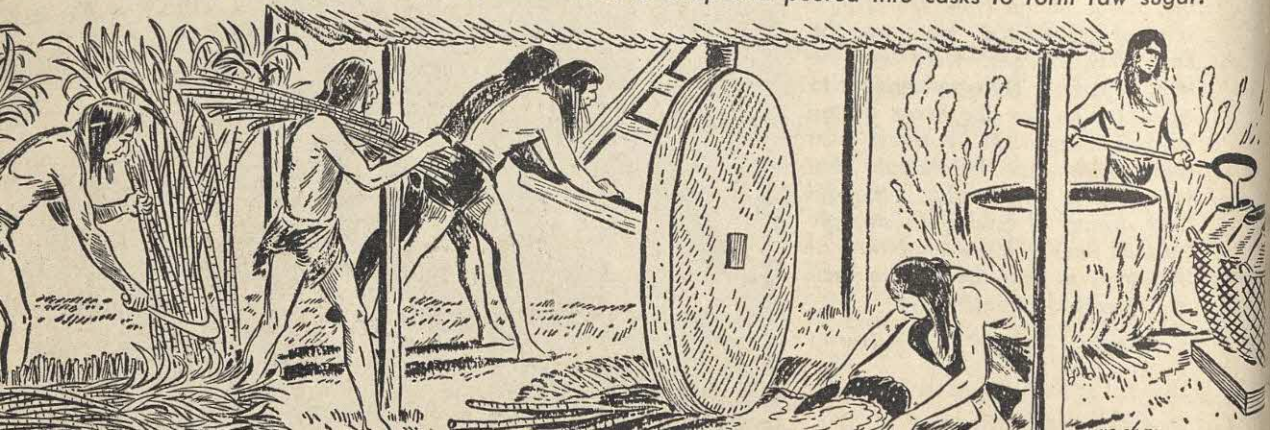
On the island of Hispaniola, where the *Santa Maria* had been wrecked on his first voyage, Columbus made his settlement, calling it *Isabella* in honor of the Queen. He placed his brother Bartholomew in charge of the colony, as governor. Where is the island of Hispaniola? To what group of islands does it belong?

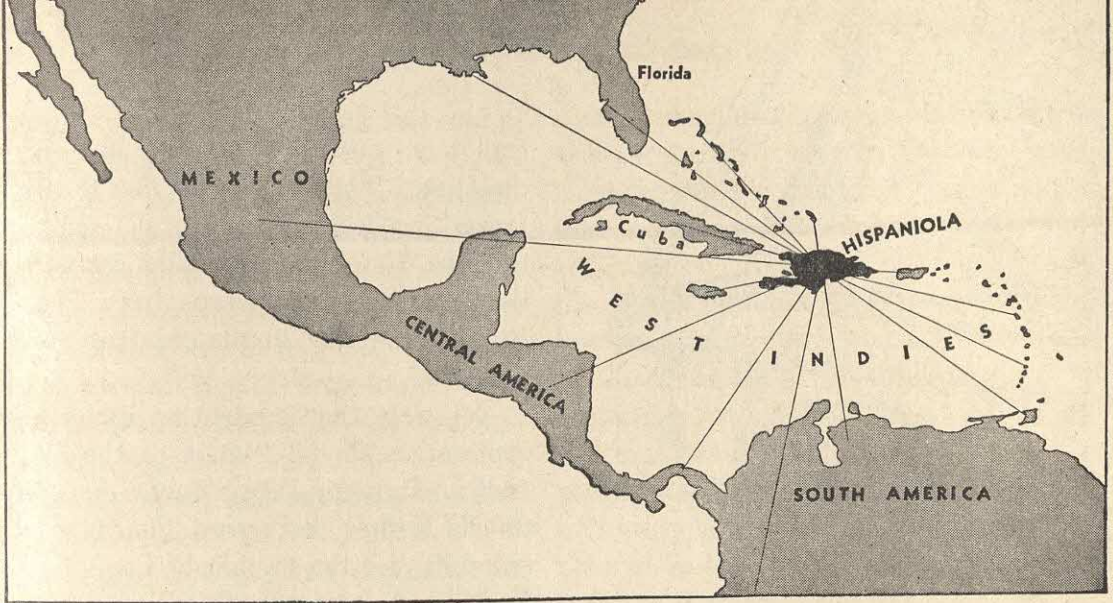
What difficulties did the colony have to overcome? The land was low and swampy. Before long, hundreds of colonists were dying of deadly tropical fevers. In addition, the neighboring Indians were unfriendly, the seeds brought from Spain refused to grow, and much of their store of food rotted and spoiled.

To make matters worse, all too many of the colonists were adventurers interested only in the gold that they might wring from the Indians. These soldiers of fortune had no intention of working like common slaves in the fields. Their swords, not their plows, were to win them riches. The colony that had begun with every promise of success all but perished during the first months of its existence.

However, the colony did not perish. A new site was found for the town. More colonists came from Spain with new supplies. The unfriendly Indians were sub-

Each year great caravans of ships brought to Spain the products of the New World. One of the most important of these was sugar. In the drawing below you see one Indian slave cutting the cane and a second carrying it to the grinder. Two more are pushing on the wheel that crushes it. Another carries the juice to a huge pot where it is boiled down to sirup and poured into casks to form raw sugar.





The island of Hispaniola was like the hub of a wheel with the paths of the Spanish explorers as its spokes. From this island they sailed out in every direction, making the most remarkable series of explorations and conquests that the world has ever seen. In a few short years they explored the Bahama Islands, the islands of the Caribbean, southern United States, Mexico, Central America, and northern South America. And wherever they went, they planted the flag of the king of Spain.

duced. Crops were successfully grown for food.

Thus was founded the first permanent colony in the New World. More than 100 years were to elapse before the founding of the first permanent English colony at Jamestown, Virginia.

What did Spain do to encourage settlers to come to the West Indies? Everything possible was done to encourage Spaniards to migrate to the New World. Homesteaders were offered free land. Free ship passage was provided for all who promised to become farmers. New stocks of cattle, hogs, sheep, and chickens were sent to the island. Even mulberry trees were brought from Spain in the hope that a silk industry could be developed.

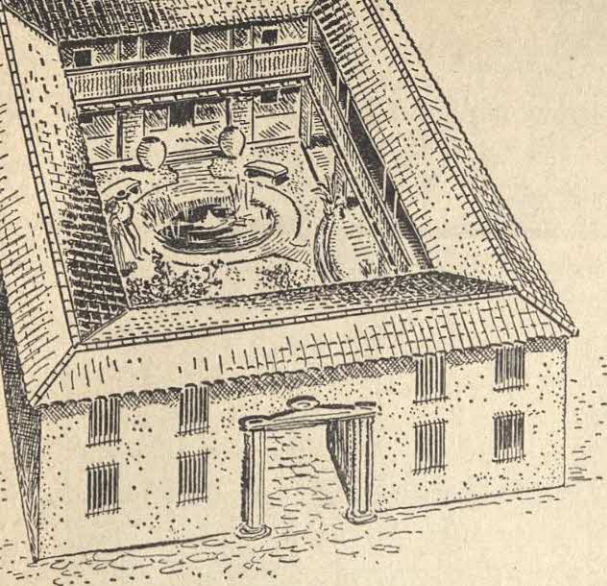
Great plantations were established, with sugar cane the important crop. New towns sprang up. Within twenty years from the time Columbus had first visited

Hispaniola, there were more than fifteen thriving Spanish settlements on this island alone.

What other lands did the Spanish explore? Some of the more venturesome were not satisfied with the humdrum existence of a farmer. They had come to the Indies for gold and searching for gold was the only life for them. No mountain wall was too high to climb, no jungle too thick to penetrate, no snake-infested swamp too deadly to enter, if it but led to gold. Hundreds of these adventurers died in the search, but there were always others eager to push on into the wilderness.

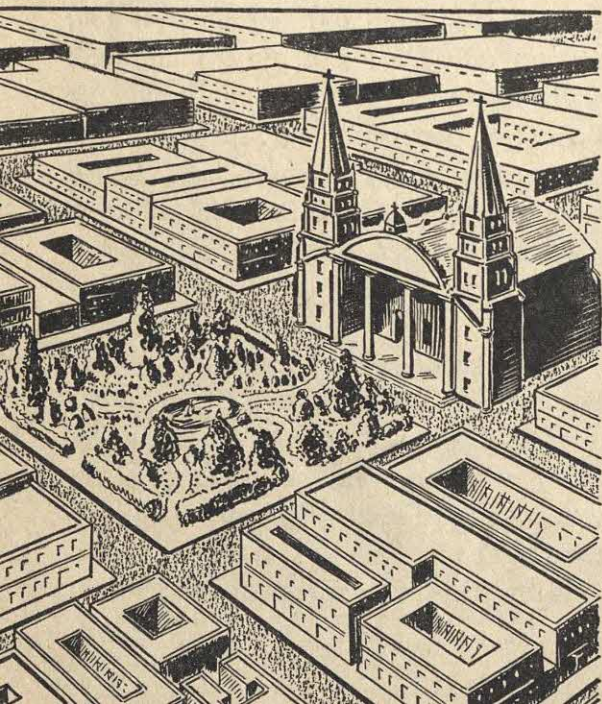
A few small gold mines were found in Hispaniola. These whetted the appetites of the adventurers to such an edge that every whispered tale of hidden riches was enough to send whole expeditions on the march.

With the island of Hispaniola as a hub,



The Spaniards who came to America built their homes as much as possible like those in old Spain. The house was built flush with the street. Its windows were closely barred, and sometimes it had a balcony. All the rooms looked in on the enclosed patio.

The cities were laid out in Spanish fashion in perfect squares, with the narrow streets crossing each other at right angles. In the center of the city was the plaza and the great cathedral.



explorers pushed outward in every direction. They sailed to Puerto Rico (pwě'r'tō rē'kō), to Jamaica (jā·mā'kă), to Cuba, to a hundred smaller islands in the great arc that sweeps from Puerto Rico all the way to the coast of South America.

Nor were they content to limit their exploration to the islands of the West Indies. In 1513 Ponce de León (pōn'-thā dā lâ·ōn') discovered Florida while searching for the mythical "Fountain of Youth." A later expedition under Hernando de Soto explored the southeastern section of our own country, finally discovering the Mississippi River.

Other Spaniards pushed into the lands west and south of the Indies, the lands we now call Mexico, Central America, and South America. There they discovered empires whose civilization rivaled their own. They also found broad plains, fertile valleys, steaming jungles, and towering mountains.

In what ways did these lands become a new Spain? A stream of Spanish settlers flowed into them. New cities were built. These were laid out after the fashion of cities in old Spain, with a plaza in the center and streets crisscrossing each other at right angles. The homes they built were much like homes in the Old World. Every house had its patio, its high wall fronting on the street, and its barred windows.

The styles of their clothes likewise followed the fashions of Spain. Much of the clothing worn by the richer classes was Spanish-made. They grew Spanish foods and fruits, and even imported olive oil for their cooking. Their favorite recreations were those of old Spain: card-

playing, cockfighting, bullfighting, music, dancing, and the theater.

To these lands they brought the Spanish language and the Roman Catholic religion. Missions were set up among the Indians to convert them to the Catholic faith. Churches were built in every Spanish town. Even church schools were started for the children of the wealthy. To many Spaniards New Spain began to seem like home, and hundreds of them settled down, content with their new life.

For three and one-half centuries the lands to the south settled by Spain have kept the language, the customs, and the way of life of their mother country. This fact makes these countries very different from the United States, since our language and most of our customs and way of life come from England.

Other explorations. Of course Spain was not the only country that made explorations in the New World. We know that England explored much of the eastern coast of the United States, and that the Dutch and the French sent expeditions to various parts of North America.

About the time of Columbus' third voyage, a Portuguese explorer landed on the east coast of South America. This region was claimed by Portugal, and several years later Portuguese colonies were planted in the land we now call Brazil.

Off to Mexico. Now we are about to leave the United States and begin our travels among the people of Latin America. We are approaching Laredo and the start of our journey. In a few more minutes we shall be in the "land of the eagle and the serpent."

YOUR TEXTBOOK—HOW IT IS ORGANIZED

By now you have finished reading Unit One of OUR SOUTHERN NEIGHBORS. Perhaps you have already discovered how this unit is organized. If not, turn back to the beginning of the book and find the first boldface question. It reads: **How does the Pan American Union serve the American Republics?** This question states a "problem" to be solved, and if you will thumb through the remainder of the unit, you will find several other boldface *questions* which are also "problems."

In other words each unit is divided into a number of important "problems," which are stated in the text as questions in boldface type.

After each problem are several paragraphs of interesting information to help you solve it. In most instances there will also be a picture, a map, or a drawing to help in the solution. With this information you should be able to state the answer to the "problem" in a single sentence.

Thus you could write the answer to the first "problem" in this way: *The Pan American Union promotes peace and cultural and economic relations among its members.* This answer would be your "understanding" of the solution to the "problem." Similar "understandings" may be discovered for all the other problems in this and later units of the book.

YOUR ACTIVITY PROGRAM

Each of the units of OUR SOUTHERN NEIGHBORS ends with a program of interesting activities. This program is divided into four parts. The *first part* of the program will help you recognize the "problems" and gain the "understandings." The *second part* consists of activities to enlarge and enrich your "understand-

ings." The *third part* provides practice in applying your new knowledge. The *fourth part* will help you form sound opinions and attitudes about issues over which people often disagree. As you do the following activities, remember that each activity has been included for a definite purpose.

Solving the Problems

1. There are fourteen problems in Unit One. Make a list of them and be ready to discuss the one which you regard as the most important. Be able to tell why you chose it.

2. Prepare to give brief answers in class to the following questions:

What are three important contrasts to be found in Latin America?

What things have helped most to improve relations between the United States and Latin America?

What gave the Admiral his advantage over the superstitious Indians?

What did Columbus hope to accomplish by his voyages?

What difficulties caused the first Spanish colony in the New World almost to perish?

How were these difficulties finally overcome?

What reasons did the early Spanish colonists have for coming to the New World?

What kinds of factory products does our country sell to Latin America?

Why did the Spaniards try to establish a silk industry in the New World?

What was the result of the discovery of a few small gold mines in Hispaniola?

Why are the languages and customs of the people of Latin America different from those of the United States?

3. Be ready to tell your class whether each of the following statements is true, false, or debatable, and to give the reasons for your answers.

The Pan American Building is in Washington, D. C.

All the nations of the Western Hemisphere are members of the Pan American Union.

The highest mountains in the world are found in Latin America.

Only recently have beautiful churches and fine universities been built in Latin America. We have always been good neighbors to the nations of Latin America.

Columbus brought many riches back from his voyages to the New World.

Homes built by Spaniards in the New World were unlike any homes in the Old World.

The Spaniards set up many missions among the Indians.

Portuguese colonies were planted in Panama.

4. Write five sentences, each of which describes one of the ways in which the Pan American Union serves the American republics. This activity will give you practice in making summaries of what you read.

5. In later units you will be asked to discover the "understandings" for yourself and to state them in your own words, each in a single sentence. But for this first unit the "understandings" which you should have discovered are stated for you.

Here they are:

I. The Pan American Union promotes peace and cultural and economic relations between its members.

II. The members of the Pan American Union are the twenty-one independent republics of the New World.

III. The regions south of the Rio Grande are frequently called Latin America because their inhabitants speak languages derived from Latin.

IV. In Latin America there are many geographical and historical contrasts.

V. The United States is now following a Good Neighbor Policy toward the nations of Latin America.

VI. The Spanish, in search of a new route to India, discovered the New World.

VII. The first Spanish colony had to move to a better site and overcome sickness, unfriendly Indians, unsuitable crops, and laziness.

VIII. Spain encouraged migration to the West Indies by offering free land, transportation, and livestock, and by helping new industries get started.

IX. In search of gold and other riches, the Spaniards explored widely throughout much of the New World.

X. The Spaniards brought to the New World the religion and culture of Old Spain, and even to this day the language, customs, and ways of living in the lands settled by

Spain remain more like those of their mother country than like our own.

Match each of these understandings with the problem to which it relates and be sure you see the relation between the two.

6. You now have the ten "understandings" to be gained from Unit One. Can you pick out the most important statements in the text relating to each of these "understandings"? If so, you should be able to make a simple outline of the unit. For instance, the simplest outline you could make of the first "understanding" would be as follows:

- I. The Pan American Union promotes peace and cultural and economic relations between its members.
 - A. Gathers information for scientists and tourists.
 - B. Prepares booklets and magazines.
 - C. Helps the various countries draft legislation.
 - D. Provides concerts of Latin-American music.

Using this form as a model, make an outline of Understandings II, III, and IV.

7. If you were making an outline of Understanding X, which of the following statements would you use as subpoints? On a piece of paper write down the numbers of the statements which you think relate to this understanding.

- (1) The first white men to settle south of the Rio Grande were Spaniards and Portuguese.
- (2) In Latin America are some of the most modern cities in the world and also ruins of some of the earliest civilizations.
- (3) Their homes were much like homes in the Old World.
- (4) Parts of South America are densely populated, but hundreds of square miles have never felt the footsteps of man.
- (5) Churches were built in every Spanish settlement.
- (6) The styles of their clothes likewise followed the fashions of Spain.
- (7) Cities were laid out with a plaza in the center and streets crisscrossing at right angles.

Enriching the Understandings

I. Turn to the back of this book, where you will find a list of books about our Latin-American neighbors. They are all very entertaining, and you will enjoy reading a number of them during the months you are studying about the countries of Latin America.

Why do we read other books besides our text? There are several reasons. We read for enjoyment. Stories of strange lands and faraway people are always interesting. We read for additional information. The authors of *OUR SOUTHERN NEIGHBORS* must leave out much information simply because there is not enough space in the text for everything. We read also to make the people and countries of Latin America more real. Every story we read will make us feel better acquainted with these lands and people.

Each unit will always contain one or more activities that refer to your outside reading. For this unit you are to read one of the books listed on page vii, and learn for yourself what an interesting subject of study Latin America can be.

In doing your outside reading for this and later units, there are these few things to keep in mind: (1) choose the books you are most likely to enjoy; (2) read rapidly, as you would read any story; (3) be on the lookout for interesting episodes or bits of information to tell about in class.

2. The Good Neighbor story told by the guide describes one of the ways in which our national government has proved itself a good neighbor to the people of Latin America. Perhaps you know of other examples of the same Good Neighbor Policy. Every week the newspapers and magazines tell of some new effort on the part of our government or people to promote friendlier relations with our neighbors below the Rio Grande. Gather a number of newspaper and magazine clippings about the Good Neighbor Policy and put them on a bulletin board for everyone to see.

3. As you continue your study, watch the newspapers and magazines for more articles and pictures about the good neighbor activities of our

government and people. Collect as many of these articles and pictures as you can and build up a Good Neighbor Scrapbook. Such a scrapbook will prove useful in later units.

4. Start a collection of articles which the United States obtains from Latin America. See how many articles you can add to your collection. Keep adding to it as you learn about other Latin-American products in later units.

5. Collecting stamps is a fascinating and instructive pastime. Form a club among the members of your class and see how many varieties of Latin-American stamps can be gathered while you are taking this course. One student might specialize in stamps commemorating historical events, others in stamps depicting scenes, products, or national heroes. Start a collection now and add to it as you continue with later units.

Applying Your Knowledge

Think through all the things you have learned so far about our Latin-American neighbors and write a short paper answering the following question: *Why should the people of the United States be interested in Latin America?*

Forming Opinions

The understandings which you have gained from this first unit are general statements about which all students of the subject agree. They are *known truths*. But they are not everything you should have gained from your study of Unit

One. In addition to what you *know*, you have undoubtedly acquired certain opinions which to you seem as interesting and as much worth holding as the understandings themselves.

Listed below are four opinions relating to the material covered in Unit One. With the help of all the information you have gleaned from the text and other sources, decide whether you agree or disagree with these opinions.

1. The work of the Pan American Union could be better carried on by the governments of the separate countries.
2. The Admiral took unfair advantage of the Indians in the means he used to obtain food.
3. The Spaniards had no right to plant colonies in lands that already belonged to the Indians.
4. The people of Latin America are so different from the people of the United States that it is useless for the two peoples to try to understand one another.

Be prepared to explain in class why you believe as you do about each of these four opinions.

Open-minded discussion of a subject with others often causes us to alter our opinions about it. Our national constitution grants to all of us equally the right to our own opinions. But that does not make all our opinions of equal worth. Some opinions are worth more than others because they rest on a better foundation of facts. Endeavor in all your thinking to base your opinions upon the solid ground of facts.



De Cou—Ewing Galloway

Visitors to Mexico carry away many interesting memories of the country. One memory that they are sure to have is of the colorful market places and of the mountains which are almost always somewhere to be seen in the distance. The Mexican market place is exceedingly gay. Pottery, foodstuff, serapes, jewelry — and the merchants themselves — are all spread out on the ground under canvas sunshades.

2. Mexico—“Land of the Eagle and the Serpent”

“*Buenos días, muchachos*” (bwā’nōs dē’ās mōō·chā’chōs).

We look up. Standing before us is a jolly, deeply tanned gentleman dressed in spotless white. This must be Señor Carlos Mendoza (sā·nyô’r kār’lōs mândō’sä), who is to be our guide through Mexico. But how are we to understand him? He speaks a foreign language.

When he notices our puzzlement, he smiles and says: “I forget that you are *americanos* (ä·mā’rē·kă’nōs). I must not speak in Spanish, the language of my own country. I said, ‘Good morning, boys and girls.’

“Our trip,” he continues, “starts here in Laredo. Once we leave the United States and enter Mexico, we must be prepared to eat, sleep, and travel just as the Mexicans themselves do. Only in that way can we really understand the people of Mexico and their country.”

Soon after this greeting we are poring over his maps as he outlines our trip.

Into what regions of Mexico shall we travel? Mexico is easily divided into a number of regions, each different from the others. Most of the country, as the map shows, is a high plateau. At its northern end, near the United States border,

this plateau stands 4,000 feet above sea level. It gradually rises southward to a height of more than 8,000 feet. Beyond its southern end lies a vast jumble of mountain peaks and valleys.

Hemming in the plateau on both sides and at its southern end are two chains of mountains—the Eastern *Sierra Madre* (sĭ·ēr'ā mä'drā) and the Western *Sierra Madre*. Their shape reminds us of a giant Y, with the top prongs of the Y reaching across the border into the United States and merging into the Rocky Mountains.

Both east and west of the Sierra Madre, lowlands run down to the sea. The eastern lowland is very narrow except in the peninsula of Yucatán (yōō'kä·tän'). The western lowland of Mexico is still narrower. But the narrowest lowlands are found on each side of a long, hot, dry arm of land stretching southward from our state of California. What name does this peninsula have on the map?

Our trip will carry us from the northern edge of the plateau southward to the high central region, and then down into the eastern lowlands. We shall thus see all the more important regions of this country.

What sort of climate does Mexico have? Since Mexico is very much nearer

the equator than the United States, we expect it to be extremely warm. But our guide says we need not worry about the heat so long as we remain on the plateau or in the mountains. In the daytime the sun will be hot, but in the shade we shall need sweaters for protection against the cool breezes of these high altitudes. And at night we shall always want to sleep under warm blankets.

Of course, there are great shimmering deserts so hot and dry that hardly a scrap of vegetation grows. In the coastal lowlands also it is very hot, and in many places very wet. Myriads of insects and dangerous diseases make this region an undesirable spot in which to live. For these reasons most of the inhabitants of Mexico make their homes in the highlands, where the climate is more comfortable.

Why is the Pan American Highway very important? Only a few hours ago we arrived by bus at the city of Laredo, on the southern border of Texas. From here we shall travel onward to Mexico City over the new *Pan American Highway*, one of the few good automobile roads in Mexico. It extends from Laredo to a point beyond Mexico City.

When present plans have been carried

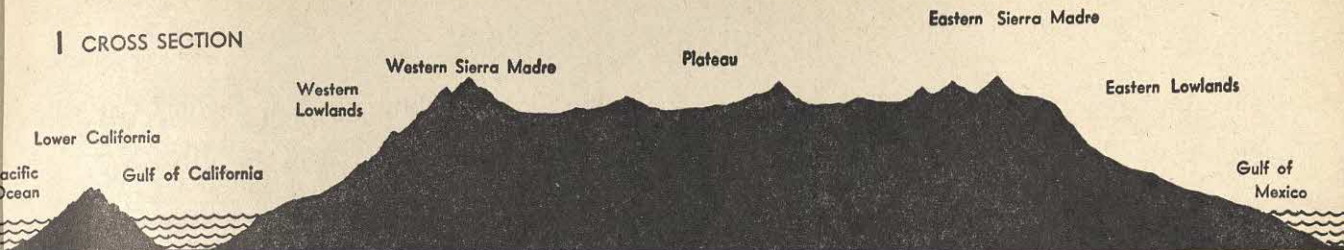


This little map shows how the United States and Mexico compare in size and shape. Here are some other interesting comparisons:

	U. S.	MEXICO
Population	131,669,000	22,776,000
Total Area (sq. mi.)	3,022,387	758,550
Cultivated Land (Acres)	1,060,852,374	16,912,800
Exports	\$12,713,503,000	\$232,465,400

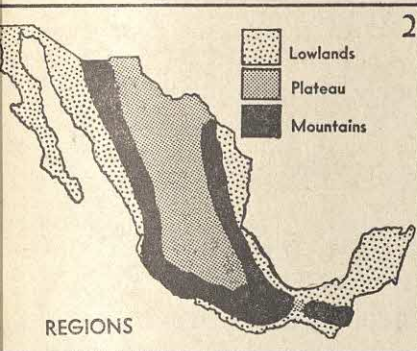
How much land is cultivated in Mexico and the United States per person? What is the value of the exports per person?

CROSS SECTION

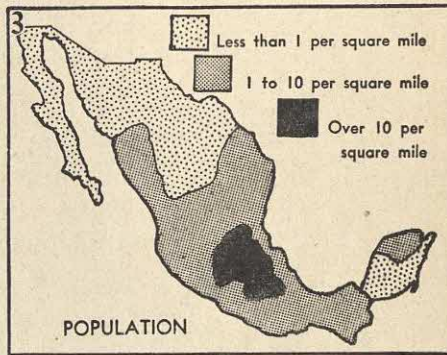


1. **CROSS SECTION.** This cross section of Mexico shows many things. Starting from the left we see the Pacific Ocean, the peninsula of Lower California, the Gulf of California, the narrow lowlands of western Mexico, the western range of the Sierra Madre, the high Central Plateau, the eastern range of the Sierra Madre, the eastern lowlands, and the Gulf of Mexico. Compare this cross section with diagrams No. 2 and 3.

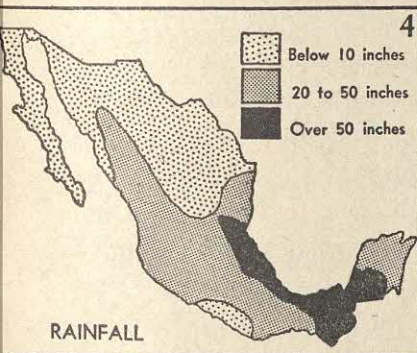
THE STORY OF MEXICO TOLD BY MAPS AND DIAGRAMS



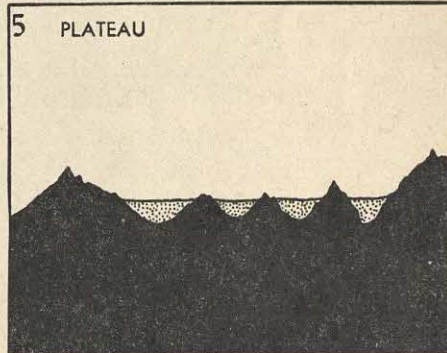
2. **REGIONS.** There are three types of regions in Mexico: the lowlands along the eastern and western coasts, the two mountain ranges that meet in the south and form a giant Y, and the high plateau.



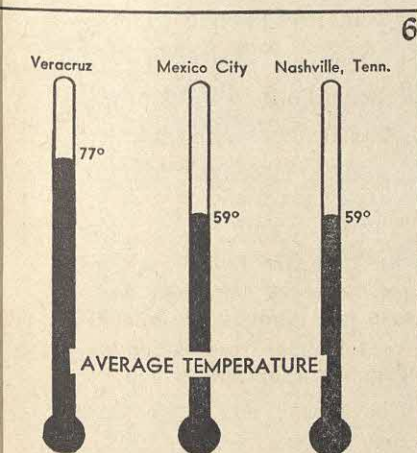
3. **POPULATION.** If we compare this population map with maps No. 2 and 4, we shall see that most of the people of Mexico live on the plateau, where the rainfall is moderate. Mexico City, the capital, is almost in the center of this area.



4. **RAINFALL.** Mexico has great extremes in rainfall. In the deserts of the northwest it does not rain for years on end. In the lowlands it rains so heavily that few people can live there in comfort.



5. **PLATEAU.** The rich soil of much of the high central plateau is made of volcanic ash, which has filled up the valleys between these once-active volcanoes.



6. **AVERAGE TEMPERATURE.** Compare the average temperature of Mexico City, Veracruz, and our own city of Nashville, Tennessee. Mexico City is much closer to the equator than Nashville, and yet its average temperature is about the same. Can you explain this? Veracruz is about the same distance from the equator as Mexico City, yet the average temperature is much higher in Veracruz. Why? We are told that in the southern highlands there is often a greater difference in the temperatures of noon and midnight than in the temperatures of winter and summer.



7. **MEXICO ON THE GLOBE.** What three large bodies of water does our next-door neighbor—Mexico—face?

out, this highway will be part of a great system of hard roads stretching all the way from Laredo to Buenos Aires. There are so few good roads in Latin America that the Pan American Highway will be of immense value when it is completed. Already most of the countries along the proposed route are at work on it. We shall really be near neighbors when cars loaded with tourists, and trucks loaded with the products of farm, field, and factory can speed from country to country over the best of modern roads.

Again we must thank the Pan American Union. For it was the union that arranged and carried through the conferences which resulted in each country agreeing to help in the building of the Pan American Highway.

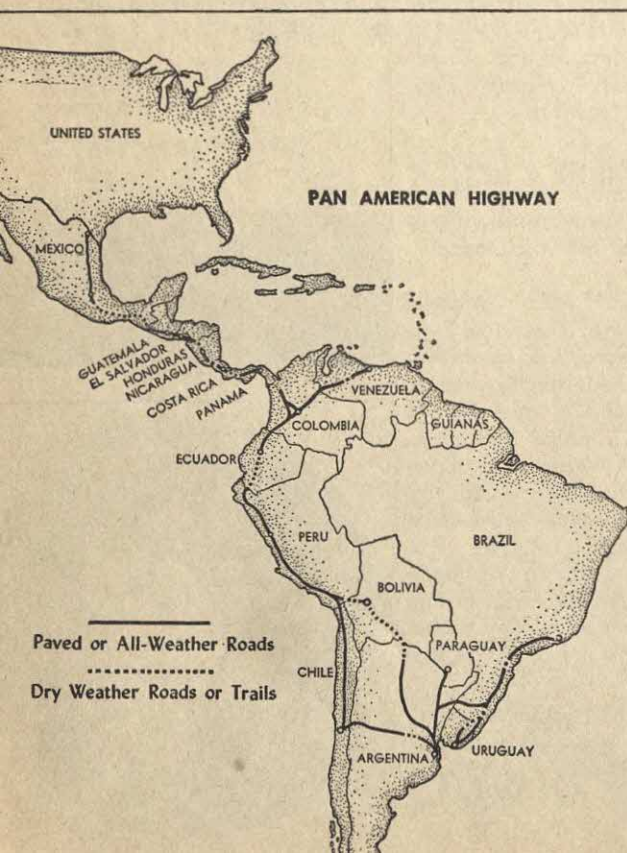
On our way. In a few minutes the driver of our bus honks the horn. It is

time for us to climb aboard. Señor Mendoza sits in front where he will be better able to point out and explain the many interesting features of his country. He tells us that he makes a business of traveling with parties of *americanos*. His fee is five *pesos* (pā'sōs) a day, which is about one dollar of our money.

Why is northern Mexico a cattle country? Soon we cross the Rio Grande and enter Mexico. At first the land looks just like southwestern Texas. Everything is dry and barren. We see only sagebrush, mesquite (mēs·kēt'), and cactus scattered over the lonely plains and distant hills.

When we have traveled only a short way we hear Señor Mendoza call out, "*Vaquero*" (vä·kā'rō). We look in the direction toward which he is pointing and see a cowboy galloping after a running steer. The cowboy wears a wide-brimmed hat, or *sombrero* (sôm·brā'rō), as protection against the hot sun. He also wears chaps as protection against the thorny bushes and numerous cactus plants. Around his waist is a broad belt inlaid with silver. Suddenly, his *reata* (rā·ä'tä), or lariat, swishes through the air and loops over the head of the steer.

There seem to be many cattle in this region. Señor Mendoza explains that very little rain falls in northern Mexico. This region is therefore not suitable for farming. Most of the people living here raise cattle, just as ranchers do on our own dry western plains. In some parts



As we can see from the map, the Pan American Highway is not nearly complete. Some of it is little more than a burro trail through the mountains, and one must travel by boat from Balboa in Panama to connect with the road in Colombia.



OUR PLANET HOME IN SPACE

This is our earth as it might appear to us from a rocket ship.

We all know that the earth is a sphere spinning on its axis as it travels through space. But men have not always known that the earth is a sphere. The people of the Old World did not even know that the American continents exist until the fearless Columbus sailed forth upon unknown seas in search of a short route to the Orient. Then, thirty years afterward, the frail ships of Magellan crossed the Atlantic Ocean and sailed

around the southern end of South America to the Pacific Ocean. Although their leader was later killed in the Philippines, thirty-one members of the crew eventually returned to their starting point in Spain, thus showing that men can sail around the world. Notice how South America is completely separated from other lands except for the narrow Isthmus of Panama. Vast oceans separate it from Africa and Europe, parts of which may be seen on the upper right-hand edge of the sphere.







MAP OF WORLD

Middle America

1. HONDURAS
2. GUATEMALA
3. EL SALVADOR
4. NICARAGUA
5. COSTA RICA
6. PANAMA
7. DOMINICAN REPUBLIC

South America

1. BRITISH GULANA
2. SURINAM (Netherlands)
3. FRENCH GULANA
4. URUGUAY

Europe

1. IRELAND
2. DENMARK
3. THE NETHERLANDS
4. BELGIUM
5. SWITZERLAND
6. CZECHOSLOVAKIA
7. AUSTRIA
8. HUNGARY
9. ALBANIA
10. YUGOSLAVIA
11. BULGARIA
12. GREECE

Africa

1. SPANISH MOROCCO
2. EGYPT
3. FRENCH SOMALILAND
4. BRITISH SOMALILAND
5. SOMALILAND
6. NYASALAND (British)
7. CAMEROONS (French)
8. NORTHERN RHODESIA (British)
9. SOUTHERN RHODESIA (British)
10. BECHUANALAND (British)

Asia

1. PALESTINE
2. TRANS-JORDAN
3. LEBANON
4. SYRIA
5. YEMEN
6. ADEN (British)
7. OMAN
8. THAILAND (SIAM)
9. MALAY STATES (British)
10. SARAWAK (British)
11. NORTH BORNEO (British)
12. PAPUA (Australian)



Kaufmann & Fabry Company

Northern Mexico is an arid land with thousands of square miles whose only growth is cactus, mesquite, and sagebrush. As on our own dry western plains, the most important industry is cattle raising. Where it is too dry for cattle, some goats are raised. In a few places the rivers that flow down from the mountains supply water for irrigation, and some crops are raised.

of northern Mexico where there is not even enough grass for cattle, the Mexicans raise goats. Goat's milk is used in many cities of Mexico in place of cow's milk.

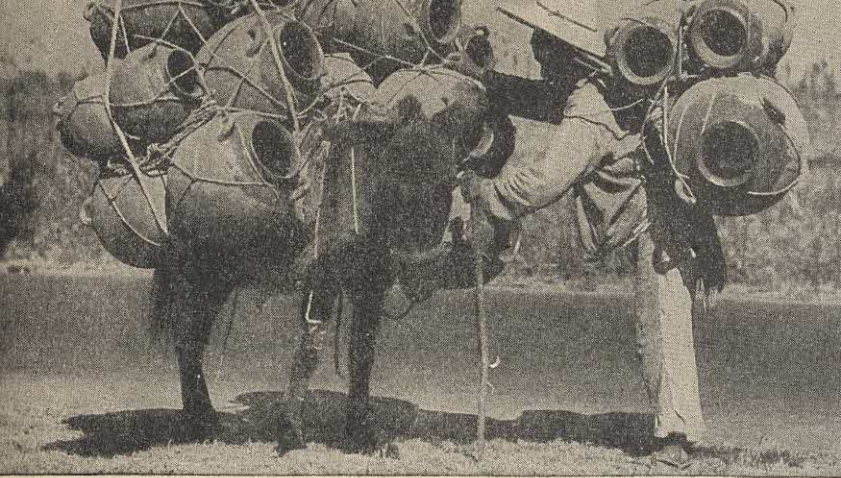
Why is northern Mexico's most important city called the "Pittsburgh of Mexico"? Nearly two more hours of driving brings us within sight of a range of mountains. Our road leads us into a valley at the foot of these mountains. Here, hemmed in on three sides, is the city of Monterrey (mōn'tēr·rā').

Smoke pouring from the tall stacks helps us understand why this city is called the "Pittsburgh of Mexico." It is the center of the country's iron and steel industry. Are any other cities as close to both iron and coal mines as Monterrey? There are also factories making textiles, shoes, and furniture. It is an important trading center too. Goods come here from the coast and from the United

States to be distributed throughout the northern plateau.

As we enter the city, we cannot help noticing how quiet everything is. Although it is early afternoon, many of the stores are closed, and few people are to be seen on the streets. We soon find out the reason. This is the time of day when most Mexicans enjoy their *siesta* (sĭ·ěs'tā). Many of the inhabitants rest during the hottest part of the day. In an hour the city will come to life again.

Our bus continues through the city, and soon we are out on the open road. Now the country becomes more mountainous. The highway winds back and forth through canyons and across the beds of many dry streams. These streams may overflow their banks during occasional cloudbursts, but most of the time they are bone-dry. Overhead a buzzard soars, and once in a while a lizard scurries across the highway.



Both man and burro are heavily burdened with these huge pottery jars, which they are taking to market. These Indians are human "freighters," traveling for hundreds of miles and carrying heavy loads, instead of shipping them to market by railroad. They are so poor that they travel day and night, existing on scanty fare, in order to exchange their goods for a few pesos in the market.

H. Armstrong Roberts

We see very few people until late afternoon, when we approach a small town. Near it we pass a few oxcarts. Then we see burros carrying great baskets of corn and other products of the fields. Most of the people are loaded

more heavily than the burros. Women carry children on their backs and heavy jars on their heads. Men trudge along under huge loads of corn, wood, or pottery for the village market. How very poor these people seem!

LIFE IN AN INDIAN VILLAGE OF MEXICO

The highway bends around the edge of a cliff. Below us in a little valley is a tiny Indian village of gleaming white houses. As we have had a long, hot drive, we decide to stay here for the night. We find a tourist camp outside the town.

No sooner does our bus stop than we are besieged by a shouting, milling group of dark-skinned boys and girls and older persons. Each one has something to sell.

There are little pottery statues of burros, huge black sombreros, silver lockets, figures carved from wood, leather sandals, brilliantly colored blankets, and foods of almost every kind. One little boy carries a tray of fried chicken on the top of his head. A little girl hangs onto us and begs so earnestly that we finally buy some of her flowers. A large bunch costs but a few pennies. "*Gracias* (grä'sê·äs)!"



In this village Indian children are playing while a merchant prepares to unload his oxcart. He is bringing in grain which he will sell at the market place the next day. In the background are old Spanish buildings with tile roofs.

H. Armstrong Roberts

This little girl looks on as her mother prepares the evening meal. Corn is soaking in the bowl. On the stone grinding board she is crushing the soft corn to make meal for tortillas. On the other board is corn meal ready for use. Every Mexican woman knows how to make tortillas. Wherever one travels in Mexico, one hears the "slap-slap" of hands as the women pat their corn meal into flat tortillas.

Henle—Black Star



she says, as we hand her our money.

What foods do Mexicans eat? As we walk toward a little restaurant, we pass a burro carrying two huge jars. Señor Mendoza tells us that the burro and his master are the village waterworks. They deliver drinking water from house to house. Very few Mexican villages and towns have a water system to pump water into the homes.

Inside the restaurant a black-haired, barefoot girl leads us to a table. Because she understands only Spanish, Señor Mendoza orders our dinner for us. We hear him calling for such things as *tortillas* (tôr·tē'yäs), *frijoles* (frê·hō'lës), and *tamales* (tâ·mä'lës).

As we wait for our dinner, we look around us. In one corner of the room a woman is crushing kernels of corn on a slab of stone. The corn has been previously soaked in limewater. Back and forth her body swings, as she crushes the corn with a piece of stone shaped like a rolling pin. When she has made a little pile of the corn meal, she makes a wet

ball of it with her hands and then claps her palms together until the ball is thin and flat like a pancake.

She places this pancake on a little sheet-iron griddle, under which burns a fire of charcoal. Señor Mendoza points to the pancake and says one word, "tortilla."

In a few minutes our dinner is ready. The tortilla, which tastes somewhat like a corn-meal pancake, is Mexico's most important food. We find that frijoles are like kidney beans. Boiled, baked, or fried, they form one of the main dishes of every Mexican family. Our last dish is a tamale. It looks like a fat sausage of corn dough with meat and peppers inside. This has been wrapped in a cornhusk and then cooked. It is so highly seasoned that we find it very hot to our taste.

We are offered two beverages, goat's milk and chocolate. We all take chocolate and find it rich and delicious.

As we leave the little restaurant, Señor Mendoza reminds us that many of the things we ate were made of corn. It is

the one plant that grows nearly everywhere in Mexico. There are fields of irrigated corn in the dry northern plateau, tiny patches of corn clinging to the steep slopes of the mountains, cornfields in little jungle clearings, and acres upon acres of corn growing on the co-operative farms of the Central Plateau.

For thousands of years, since long before the coming of the white man, corn has been the most important food of the people of this land. About the only other food eaten almost everywhere in Mexico is frijoles, or beans.

That night we have a good sleep. But we are awakened early in the morning. First a rooster crows; then pigs begin to squeal; and finally, a burro lets out a shrill bray that would awaken even the soundest of sleepers. Slowly, one by one, the villagers come from their homes. Each woman goes to a crude stove just outside her door. The stove is only two stones with a metal sheet laid across them. Underneath, a fire is started. Strong black coffee and tortillas are made for breakfast.

This seems like a very poor breakfast. Our guide tells us that the Mexican diet of corn and beans is not so good for chil-

dren as our food at home. Poor sanitary conditions in the small villages cause much sickness. Unless the water is boiled or filtered, it is often unsafe to drink. Only the pure, dry air and abundant sunlight help to check the spread of disease.

Soon the men and the older boys and girls are on their way to the fields. Some of them carry nothing but crude hoes. Others lead burros or oxen to draw their simple plows.

What subjects are taught in a Mexican village school? Sometime later in the morning we watch children making their way down a village street to a new schoolhouse. We ask Señor Mendoza if we may go inside. He assures us that the pupils and teachers will be delighted to have us visit them. We are indeed given a warm welcome by the two teachers. One of them speaks English. She offers to answer our questions.

The children are taught reading, writing, arithmetic, history, and geography. But the most important subjects are such things as cooking, sewing, weaving, pottery making, and especially sanitation and health.

There is a small garden plot close by



Some of these Mexican children have shoes and the others are barefoot, but they are all anxious to learn to read and write. Their parents are very proud of this school, and there was a great celebration in the village when it was first opened.

Courtesy Mexican Tourist Association



Ralph Hancock

The Mexican market place is sometimes so crowded with fruits and vegetables, pots and jars, serapes and hats, and an endless variety of other goods, that it is almost impossible to walk through it. Many of the merchants have carried their goods to the market on their backs. Some of them travel ten or fifteen miles to sell a few centavos' worth of goods.

the school. Here the boys are taught better ways of farming. Sometimes the children cook and eat the vegetables raised in their school garden. Sometimes they sell the products of their garden and use the money to buy their school supplies.

The teacher tells us that until recently only the very largest Mexican cities had schools, and these were for children of the rich. The children of the poor never attended school. But now the government is building schools in all parts of Mexico. Perhaps it will not be long until every Mexican child will be given a good education.

As we leave the school, we say, "Good-bye" to the boys and girls. In reply they call out, "*Adiós*" (ä·thē·ōs').

Why is the market place an important part of every village? While we have been inside the school, the square in

front of the church has filled up with peons from the country. For today is market day. What fun it is to walk through the market place! Everywhere men and women are sitting on the ground with their wares spread out before them.

We see little piles of fruit, vegetables, and nuts. There are earthenware pots and jars, beautiful baskets, sleeping mats woven of palm leaves, and silver jewelry. But most numerous of all are the articles of food. Señor Mendoza tells us that most Mexicans love to bargain. One seldom pays the first price asked. One argues and waits until the price has been lowered. It is like a game, and everybody thinks it great sport.

We are surprised to see that many of the Mexican women have their babies with them. The babies sleep on their mothers' backs and do not seem to mind the hustle and bustle of the market



The homes of the Mexican villages are usually one-room houses, built of whatever material is at hand—mud, thatch, bamboo, or adobe brick. Most of the homes on the Mexican highlands are built of adobe bricks. These bricks are made of mud or clay mixed with straw and left to harden in the sun.

Henle—Black Star

place. Indian mothers have carried their babies in this way for centuries.

Every Mexican village and city has its market place. In some of the greater cities every day is market day, but in the smaller places the market is usually held only on Sunday.

The Indian markets have changed but little in hundreds of years. In early times the market was the only place where the farmers, the weavers, the pottery makers, and the other craftsmen could sell their wares. And so today, instead of trading their products in stores as farmers sometimes do in the United States, Mexican farmers simply lay their wares out on the ground and wait for customers to come along and buy them.

Each vendor has his own place in the market, often the same place his father and grandfather had before him. On market days he pays a small tax to the village for the rent of this space.

Since most of the people of Mexico are very poor, they do not have trucks or automobiles. Many of them do not have even oxcarts or burros to carry their goods to market. Most of the products come to market on the backs of the

peons themselves. Perhaps some of the peons we saw the night before were carrying their loads to this market.

What kind of homes do the peons have? Most of the homes of the *peons* (pě'ünz), or workers, are very, very simple. The houses are crude cabins made of sun-dried mud or clay bricks, called *adobe* (ă·dō'bī). Some have red tile roofs, but most of them are thatched with grass or with leaves of the *maguey* (măg'wā). The walls of the dry, dusty houses are weather-beaten and drab, but occasional flowers brighten the yards and roadsides. Inside we find a room or two with dirt floors, straw mats for beds, and almost no furniture. A lean-to against the house serves as a kitchen; near by is a storeroom for maize, and sometimes a crude stable. A dog or two, a few chickens, and a burro or an ox complete the household.

What kind of clothes do the Mexican peons wear? All day long we have been passing men dressed in what seem to be white pajamas. Now we find that these pajamas are really white cotton trousers and loose shirts. Many of the men carry a narrow blanket, which is called a

This laughing little Mexican boy wears his own straw hat and his father's serape. A Mexican could probably tell us from what village the boy comes by the design on the serape.

James Sawders

serape (sě·ră'pě). At night the serape serves as a blanket. In the daytime when the weather is cold or rainy, the peon puts his head through a slit in the serape and uses it as an overcoat or a raincoat. The women all wear long skirts with colorful blouses and carry shawls over their heads. Sometimes a baby is carried in the shawl.

Into the tropics. But now it is time to continue on our way. Already the sun is high, and we have a long trip ahead of us. Not many miles south of the village, we pass an interesting sign reading *Trópico de Cáncer* (trō'pě·kō dā kăn'sěr). Why is the part of the earth we have entered often called "the tropics"?

After a while our road begins to climb higher and higher. We pass over breathtaking gorges. We zigzag upwards on a shelf cut into the side of a mountain. We cross range after range of mountains, each range more rugged and more magnificent than the one before.

On the plateau. At last our highway



begins to flatten out. Now we are on Mexico's great Central Plateau. Here the land is about a mile and a half high. The sun shines brightly, but the heat is not uncomfortable, even though we are in the tropics. Why is this so?

Not very far from our fine highway we see a little stream, in which women are washing clothes. They pound and scrub their washing on the stones. The poorer

On the bank of a small stream this Mexican family does its washing. They have very little soap; to get the clothes clean the women rub them on boards and rocks. Washday is a very gay time. The women gossip as they work; and after they wash the clothes, they bathe, and wash their hair. When they return to their homes, they are very clean indeed.

James Sawders



Mexicans rarely use soap. Even when they do, it is a crude black soap which they make themselves. Afterwards they lay the clothes out on the banks to dry.

Why do so many of Mexico's inhabitants live on the Central Plateau? We see many more people here on the Central Plateau of Mexico than in the dry cattle lands to the north. As we examine our map, we see that the Central Plateau is only about one sixth of the total area of Mexico. Yet in this small region lives more than half the population. Here are most of Mexico's cities. There are several good reasons for the greater population. Rainfall is one. Though not excessive, it is ample for the growing of crops. The temperate climate is another reason. The high, cool plateau is much more healthful than the hot lowlands.

A further reason why so many people live on the Central Plateau is its level surface and rich volcanic soil. A fourth reason is that rains on the mountain slopes supply water for irrigation and for water power.

A visit to a famous Mexican landmark. Our bus now turns off the highway onto

a side road. First we ride past fields of corn. Next we travel down a tree-lined road, and suddenly there looms ahead of us a tremendous pyramid—the *Pyramid of the Sun*.

The closer we come to the pyramid, the larger it seems to grow. Señor Mendoza says it is a long way up to the top. But we decide to make the climb. Breathless, we finally reach the summit of this man-made mountain of stone and mortar.

There below us stretches a thrilling view. Among the fields of corn are other huge mounds, some of them still unexplored. Not far away is another large pyramid—the *Pyramid of the Moon*. To the right we see a great depression in the ground that must have been some sort of open-air theater.

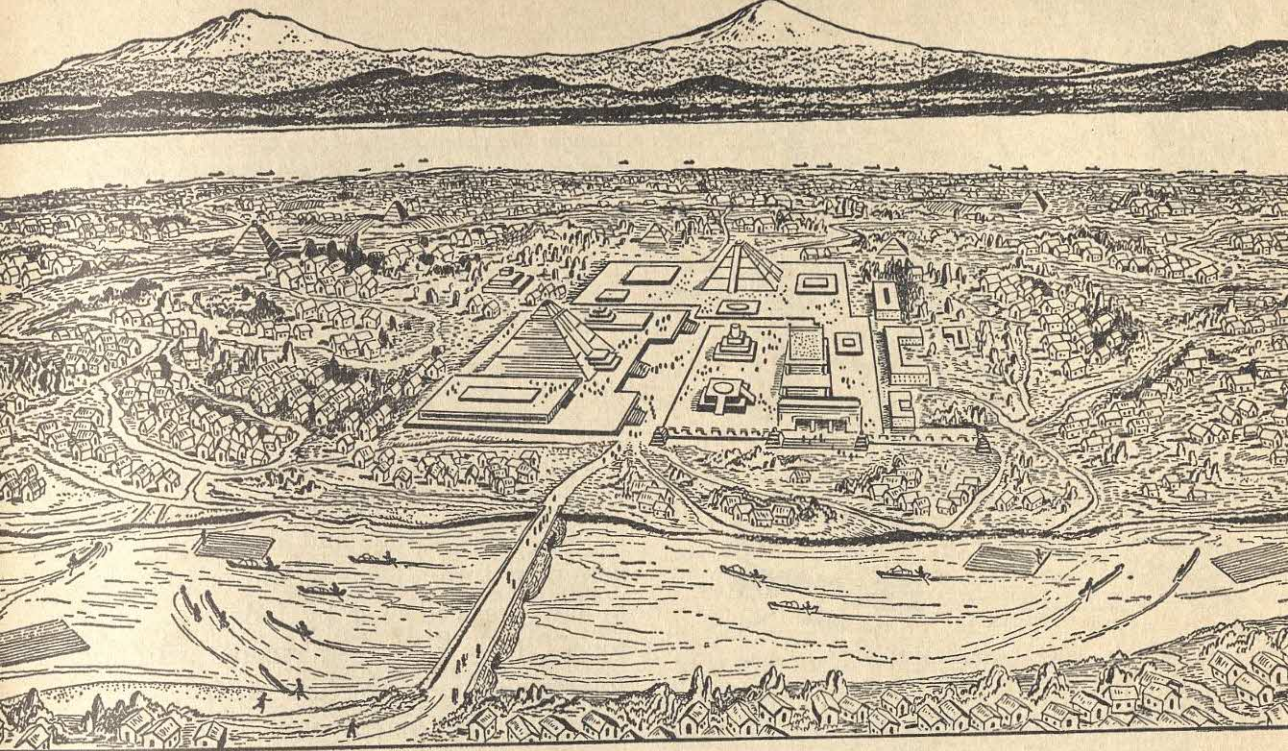
What do we know about the Indians who built these mighty pyramids? Our guide tells us that Mexico was inhabited by Indians long, long before Columbus discovered the New World. One of the highly civilized early tribes was the *Toltecs* (tōl'těks). They built so many great palaces, temples, and pyramids, that they are often called "the builders." Here in this region of the pyramids they had their sacred city and worshipped their gods.

Señor Mendoza adds that later another tribe of Indians moved into this region. When we ask our guide about them, he tells us the fascinating story of the *Aztecs* (āz'těks), the most highly civilized Indians of the Central Plateau.

Halfway up this great pyramid is the tiny figure of a man. This helps us to realize the pyramid's tremendous size and makes us wonder how it was possible for primitive people to build this man-made mountain without machinery and even without horses or oxen or burros.

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We have no pictures of the ancient Aztec capital of Tenochtitlán. We do know that it was on an island in a shallow lake and that it was connected to the mainland by great causeways. In the center of the city was a magnificent plaza with pyramids and temples, palaces and gardens. Towering behind were the mountains Popocatepetl and Ixtacihuatl.

THE AZTEC INDIANS

About two hundred years before Columbus' first voyage to America, a tribe of Indians known as the Aztecs wandered onto Mexico's Central Plateau in search of a place to settle down.

The descendants of the Aztecs tell a very interesting legend about how the site of their settlement was selected. It seems that the tribe had wandered like nomads for years, ever searching for a richer soil, a better climate. Then one of their priests had a vision. In the vision he saw an eagle devouring a snake. The eagle was resting on a cactus plant. "By this vision," said the priest, "the Aztecs will know where to make their home."

For years afterwards the tribe continued to wander about the Central Plateau. Finally, they came into a beautiful valley

bounded on three sides by a great half-circle of volcanic peaks.

One day as they wandered beside a lake within this valley they observed an island a stone's throw away from shore. Suddenly an eagle swooped down upon the island, savagely attacked a snake, and then proceeded to devour it on the branch of a cactus. This was the fulfillment of the priest's prophecy. Here, then, on this island, they decided to settle down and build their homes and sacred temples.

How did the Aztec Indians become the strongest tribe in all Mexico? At first the island was not a very peaceful home. Powerful tribes already held most of the land around the lake. The island was low and marshy and difficult to cultivate.



Into the great market place of Tenochtitlán were brought the riches of the Aztec Empire. It is said that as many as 40,000 people came to buy on market days.

They grew cotton and wove cloth as fine as any being produced in Europe at that time. Jewelers created exquisite ornaments of gold and copper set with polished jade.

Many of the Aztec wise men were skillful scientists. They learned much about the ways of the stars and about the wonders of nature. They established courts of law presided over by judges in long robes. They kept their records with an interesting kind of picture writing.

But the Aztecs were a resourceful people.

They built fences of woven reeds around small plots of the island's marshy ground. Then they scooped up mud and dumped it into these enclosures. Soon there were numerous little islands standing high and dry above the water, with narrow canals between. Trees were planted on the islands, and their roots helped to hold the soil in place.

These man-made islands were very fertile, and water was always at hand to irrigate them. Several crops of corn, beans, squash, gourds, peppers, tomatoes, and other vegetables could be raised each year.

Gradually, the Aztecs grew in power. Their armies increased both in size and skill, until few tribes in central Mexico were able to stand against them.

What have our scholars found out about the great Aztec civilization? The Aztecs also became the most civilized Indians of their time in North America. They were expert farmers, skilled builders, and fine craftsmen in mosaic work, stone carving, and pottery making.

Among the Aztecs were many good businessmen. Every year merchants left the capital with long caravans of slaves carrying products of the city. These they bartered with the natives of other cities and villages throughout Mexico. When they returned home, they brought back pottery, fine clothing dyed with all the colors of the rainbow, leather goods, copper knives, gold and silver ornaments strangely carved, drugs, and even slaves.

The Aztec capital. All of these things poured into Tenochtitlán (tā·nōch'tētlän'), the Aztec capital. From a tiny island village it had grown to a city of over 300,000 inhabitants. Great causeways now linked the islands with the mainland. The people usually moved about from island to island by canoes or flat-bottomed boats; most of the food products were poled to market over the shallow canals.

The market place. In one section of the city was a huge square. Here on market days came as many as 40,000 people to buy and sell goods of every de-

The Aztec priests sacrificed thousands of victims in their cruel and bloodthirsty rites. Human lives were offered to the God of War, the God of Rain, the Corn Goddess, and to many lesser deities.

scription — food, flowers, lumber, hot chocolate, carved wood, bales of cotton, mirrors made of volcanic glass, and the stocks of goods brought to the capital by the merchants.

Most of the business was carried on by barter. But little sacks of cacao beans, bits of cloth, and pieces of metal were often used as money to help in "making change." On one side of the market was the stall of the judges, where disputes arising in the day's business were settled.

The Aztec homes. Near by were the palace of the emperor and the homes of the nobles. The palace of the emperor was the greatest of all the Aztec buildings. It was built of carved stone. Its rooms were decorated with valuable jewels, metals, and woods. Some of the rooms in this palace were large enough to hold a thousand persons at one time.

Some of the homes of the nobles were constructed of stone, but most were built of adobe. If the owner was very rich, the house might be two stories high, with a broad outside stairway leading up to the rooms on the second floor.

In the parts of the city where the poor lived, the homes were usually tiny huts built of adobe, or wattle shacks made of woven branches plastered with mud.

The Aztec religion. In the very center of the city was a square, or *plaza* (plä'zä). It was the most sacred ground in all Mexico, for here stood the great pyramid, or *teocalli* (tä'ö·kä'lê) — the palace of the gods.



On certain days the people all crowded into this plaza. For hours they stood in expectation. At last, from the temples in the plaza there marched hundreds of priests, their long matted hair decked with brilliant feathers.

Mysterious drums throbbed in the distance. The procession of priests moved slowly up the steps of the pyramid. As it reached the top, the crowd was hushed in breathless silence.

From one side a captive prisoner of war was thrust forward and placed upon the sacrificial stone. The high priest gave a sign. The stone dagger descended—and another human life had been sacrificed to the Aztec gods.

It is hard to believe that the priests who performed such rites could be of any real service to the people in other ways. Yet these same priests were the doctors; they were the agricultural experts who taught the farmer how to raise better crops; and they were the teachers in the Aztec schools.

The Aztec schools. Aztec schools were for the rich. The sons of government

officials were given training to make them officials, the sons of artists were taught to sketch and paint, the sons of businessmen were tutored in those subjects which were useful in business life.

The boys were not the only ones who went to school. There were classes for the girls of the wealthy families. They were taught to cook and sew, spin and weave, sing and dance, and to perform various duties and rites at the temples.

Of course, most of the boys and girls of ancient Mexico did not go to school. They were too poor. They arose from their sleeping mats at the break of day, ate their bit of corncake, and made their way into the fields, there to work all day under the hot sun.

If the children did not work in the fields, they helped in other ways. Often they served their parents and masters as

beasts of burden, carrying huge loads to the near-by market place. As the Aztecs had no horses or burros or oxen, all of the loads were carried by the people themselves.

What happened to the Aztec civilization? Nothing stays the same forever in this world. Civilizations that have been hundreds and even thousands of years in the making finally begin to crumble and die. Nations grown to power and splendor often disappear within a few short years. Many are the causes which have brought about the destruction of nations. But the most frequent cause is war.

So it was with the proud Aztec empire. At the very moment when their power was at its height, the Aztecs were overthrown and their civilization destroyed by one of the boldest conquerors the world has known—Hernán Cortés.

THE GOLDEN CONQUEST

Cortés was a Spaniard. He had come to the West Indies not long after Columbus to seek fame and fortune. His great chance came when the governor of Cuba put him in command of an expedition to explore Mexico.

Unfortunately, before the expedition could get under way, the governor changed his mind and tried to put someone else in charge. But Cortés heard of the governor's plans and managed to slip away from Cuba before the governor could head him off.

After reaching the Mexican coast, Cortés decided on a bold course. To make it impossible for his men to turn back, he ordered the ships burned. Retreat was now out of the question.

With cries of fierce indignation and

with threats of mutiny, the outraged warriors sought out their general. Hernán Cortés, captain-general of the most daring expedition ever undertaken, calmly addressed his angry army.

"My men," he began in firm but persuasive tones, "it is true that I ordered our ships destroyed. But what use can we have of ships now? Our business lies in the city of Tenochtitlán, seventy leagues inland. We must go forward with resolution. We must not suffer defeat, for if we do there will be no escape.

"But think not of defeat. Think rather of the riches that will be ours for the taking. I tell you we are going to conquer this land in the name of the King of Spain. We will plant the holy cross on every hilltop!"



When his men were enraged at the destruction of their ships, Cortés skillfully calmed them. Eloquently, he spoke of the riches of Montezuma which lay ahead and not behind. They were soon eager to be on their way to the golden city of Tenochtitlán.

Under the spell of their leader's words, the men's indignation vanished, and their greed for the spoils of war returned. Amid oaths and hoarse shouts of approval, the men renewed their pledge of loyalty. "Tenochtitlán! On to Tenochtitlán!" they cried.

After the men had gone their ways, the general turned to his trusted lieutenant and friend. "Well, Captain Alvarado (äl'vä·rä'thō)," he said, "that particular crisis is over! But how many more crises lie ahead! Here we stand on the threshold of an empire bursting with riches, but an empire also filled with cruel and ruthless enemies who outnumber us a thousand to one.

"But we shall win, my friend," continued Cortés. "I know how to fight them, but they do not know how to fight us. Besides they look on me as a sort of god returned to fulfill an ancient prophecy. They are struck with wonder at the sight of our horses and fall in fright at the sound of our cannon. They

will hardly dare to resist us. We bring these heathen the true faith, and it is God's will that we succeed."

Along the way to Tenochtitlán, Cortés conquered or won over all the Indian tribes through whose territory he had to pass. From some he secured supplies. Others, who had long been enemies of the Aztecs, became eager allies.

At last Cortés reached a mountain pass overlooking the city of Tenochtitlán. If ever the undertaking had seemed too dangerous to be worth while, all doubts quickly vanished from his mind as he beheld the spectacle before him. The gleaming white buildings, temples, and palaces made a dazzling contrast with the sparkling blue waters of the lake. It seemed like a magic treasure house whose untold riches awaited only the forcing of a door.

Montezuma (mōn'tē·zōō'mā), the Aztec ruler, already knew of the approach of the white strangers. Swift runners had kept him informed of their



Cortés was greeted by Montezuma carried on a golden litter.

every movement. From the pictures they had drawn for him of the invaders, their steel armor, their guns, and their horses, he felt it useless to resist. Perhaps he thought he could persuade them to depart in peace, bearing his costly gifts and his greetings for their great emperor across the sea!

On the eighth of November, 1519, the handsome Aztec emperor, warrior, and priest, fantastically arrayed and carried on a golden litter, came out to greet Cortés and his army as they marched through the unguarded entrance of the city. The strangers were assigned the use of a large palace opposite the main temple. Cortés was delighted with the magnificence of their surroundings. Yet he took no chances. His guns were set in position, and a round of shot was discharged to impress his hosts with the might of his weapons.

Friendly visits were exchanged between Cortés and Montezuma. "Not even the King of Spain can boast of such luxury," declared Cortés on his return from

one such visit. "The emperor lives amidst the greatest of splendor. Within the walls of his palace is an amazing collection of wild birds, animals, and every kind of tropical growing thing.

"But we must remember that we are here at present only as guests. Montezuma has but to say the word and the drawbridges will be lifted, his people will turn upon us, and we shall be trapped like rats. The conquest of Mexico is yet to come, and the first step is to seize the emperor!"

Cortés was always a man of action. He took bold, desperate chances that would have stopped a man of lesser courage. He decided upon one such gamble now. He resolved to kidnap Montezuma!

His reckless plan worked. The proud Aztec ruler, taken by surprise, was led as a hostage to the palace in which the Spaniards were quartered.

But before he could follow up this advantage, Cortés received distressing news from the coast. "It is as I feared," he told his officers. "My old enemy, the



The Spaniards, heavily laden with booty, were killed by the hundreds.

governor, has sent an expedition to overthrow me. I must start for the coast at once."

Leaving most of his small army at Tenochtitlán under the command of his loyal friend Alvarado, Cortés moved swiftly against the new foe. In a surprise attack, his small force quickly overcame and captured the rival leader. Then by his eloquence and generous treatment he easily won over the loyalty of the defeated army. Thus he more than doubled his strength in men and equipment.

But his joy was soon turned to sorrow by news from Tenochtitlán. The Aztecs had risen up against the small army under Alvarado and were threatening them with certain destruction. Alvarado had brought on the trouble by ordering the massacre of six hundred Aztecs during a religious festival.

Returning to the city with all possible speed, accompanied by his new army, Cortés sought to put down the uprising. But the Aztecs were by now thoroughly aroused. They attacked the palace occu-

pied by the Spaniards. During the fighting, Montezuma was slain.

Caught inside the hostile city, Cortés and his outnumbered army fought desperately. But shortage of food and ammunition finally compelled them to quit the city.

"Save your lives!" commanded Cortés. "Leave the gold behind. We can return for it later." But the men would not heed him. Go off and leave all this treasure behind them? Not they! Weighted down with the precious stuff that was to be their undoing, they tried desperately to get out of the city.

It was every man for himself. The wily Aztecs had raised the drawbridges across the canals. They massed on the housetops, swarmed about the canals in their canoes, and let loose such an endless stream of arrows that hundreds of the Spaniards were slaughtered as they struggled to escape. Scores of them fell into the water. In certain places, the canals became so filled with slain Spaniards, that those running pell-mell be-

hind were able to cross by stepping on the bodies of their fallen comrades.

When finally Cortés had gathered the survivors around him in a place of safety, a count was made. Of twelve hundred men, fully eight hundred were now missing. Throughout the night the young leader sat beneath the spreading branches of a cypress tree and wept.

But the spirits of the defeated army lifted with the rising of the sun, and Cortés spoke to his men with renewed confidence. "My men," he said. "Do not think we are through. We shall yet re-enter the capital and conquer it. I have learned that still another expedition has landed from Cuba. From it we shall gain more men, more guns, and more horses. Moreover, we shall gather on our side all the tribes for miles around who have suffered under the Aztec oppression. Only think of the gold and jewels that await us there, and take heart!"

At these stirring words, the small army regained its courage. Months of preparation followed. In order to use the lake for fighting and not be entirely dependent on causeways, Cortés built a fleet.

The army desperately needed sulphur with which to make gunpowder.

"By my conscience!" cried Cortés, "here is a task for real men! Who of you are willing to go to inferno itself to get this stuff that lies waiting for us in the crater of yonder volcano?"

"I, good sir," cried one of the men, named Montano (môn·tä'nō).

"And I. And I. And I," cried three more. So it was decided. The four adventurers climbed to the rim of Popoca-

tepetl (pō·pō'kă·tă'pēt'l). There, a thousand feet below was a veritable field of fire, shooting out tongues of red which could be seen through the cloud of steam rising about it. Along the sides of this fiery crater, the longed-for sulphur crystals had formed.

"*Caramba!*" exclaimed one of the men, peering down. "What a death! Which of us is to enter that fiery inferno?"

It was decided to cast lots and the fate fell to Montano, the leader. He scrambled into the crude reed basket they had brought along, made the sign of the cross, and signaled his companions to lower him. Down, down, he went, two—three—even four hundred feet! What if the cable should break? Or the basket fall apart? Time and again, Montano was swung out over the fiery pit and let down. Each time he brought back a load of the precious sulphur, until it was evident that they had an abundance.

"Bravo!" congratulated Cortés on their safe arrival back at camp. "You are one man, Montano, who can say you have been to the nether regions and lived to tell of it!"

At length the ships were finished and all supplies and equipment ready. Tens of thousands of Indian allies had been organized into a powerful army. Once more Cortés marched toward the city of Tenochtitlán. Soon his army commanded the entrances to the causeways, while his fleet controlled the lake. The Aztecs now could obtain neither food nor pure drinking water.

Time and again, Cortés sent word to the new emperor, that unless the city surrendered the invaders would be forced to destroy it.

Deep inside the fiery mouth of Popocatepetl, Montano gains the precious sulphur with which to make gunpowder.

"Never," replied the haughty Indian chief. "You may starve us or kill us, but we will never surrender."

Attack after attack was made. The Spaniards and their Indian allies fought hand to hand with their Aztec foes. The air was rent night and day with such shrieks, whoops, and yells as only a horde of maddened Indians could produce. In spite of desperate hunger and disease, the brave Aztecs withstood the siege for over two months. The temple was in flames and the city practically in ruins when, on the thirteenth of August, 1521, Cortés spied the emperor attempting to escape in a canoe. He overtook him and forced his surrender. The conquest of Mexico was complete. But at what a cost!

All that remained standing of the once beautiful city, Cortés and his men leveled in a frantic effort to find the gold and other vast treasures of the Aztecs. All had vanished! From all the ruined city they obtained less booty than had been freely given them by Montezuma when they had first arrived on the Mexican coast.

With his usual energy, Cortés immediately set to work rebuilding the ruined city. In only two years, he restored it until it was more beautiful than ever, and a worthy prize to set before the King of Spain.

In what ways did the Aztec and the Spanish civilizations join to make a new Mexico? If we remember well the history of the United States, several things come to mind.



1. Before the coming of the white man, the people who lived in our land were Indians—with Indian ways, Indian food, Indian clothing, and Indian houses.

2. After the coming of the white man, the Indians were driven from their lands, pushed westward, and finally placed on reservations.

3. The United States became a country whose people followed English ways, their homes, clothes, and food being much like those of England. Hardly any of the ways of the Indians have been adopted by the people of the United States.

How does this compare with what happened in Mexico?



The tiny figure to the left represents the 1,000,000 persons of pure-white descent now living in Mexico. The figure at the right represents the 4,000,000 pure Indians. The center figure represents the 15,000,000 mestizos, who are of mixed Spanish and Indian descent.

1. Before Cortés, Mexico was an Indian land with Indian ways.

2. After the Spanish conquest, much of the Aztec civilization was destroyed. But the Indians remained where they had lived before the arrival of the white men. The Spaniards and the Indians often intermarried, with the result that today nearly three fourths of the people of Mexico are *mestizos* (mēs·tē'sōs) — a word meaning "persons of mixed blood."

3. Just as the Spanish and the Indians intermarried, so their ways of life joined to make a new Mexico, some of whose ways resembled those of old Mexico and some those of Spain. Even today we can see Indian and Spanish ways strangely intermingled. Human cargo carriers,

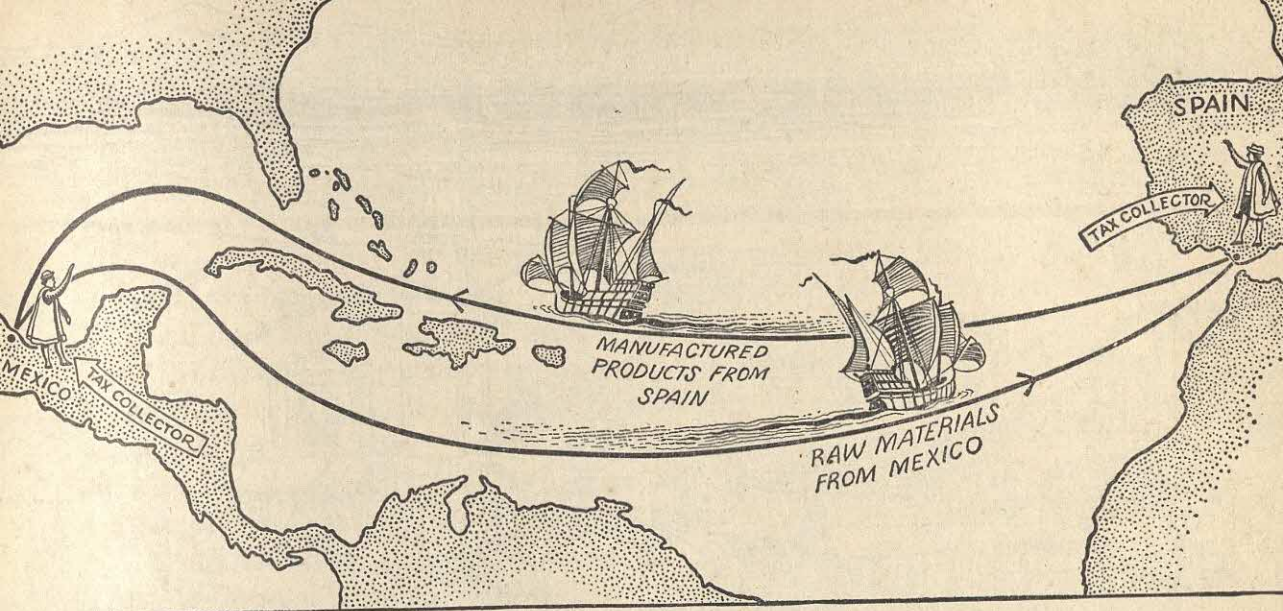
who follow in the footsteps of their Aztec ancestors, compete with burros and horses descended from those brought over by the early Spaniards.

Thatch-roofed Indian houses, with dirt floors and few windows, stand next door to tile-roofed houses that look as though they had been designed in Spain. In the villages the women grind their corn with stone rolling pins, cook their meals over an open hearth, and eat much the same food as did their Indian ancestors. But in the larger towns and cities, and among the wealthier classes, the food is prepared over charcoal fires in metal pans and eaten on china dishes, just as in the wealthier homes of Spain. At night the Indian still sleeps on his rush mat, but the city-dweller uses a bed.

Spanish is, of course, the official language of Mexico, but thousands of Indians still speak one or other of the fifty different native dialects. Most of the people of Mexico today are Catholics, but it is said that many of the religious rites still carried on in certain mountain districts strangely resemble some of the rites of the ancient Aztecs.

And the Catholic churches we see in every town are not entirely Spanish. Many of them are decorated with Indian figures and designs like those produced by Aztec artists. In many cases the churches stand on the site of Aztec temples which were torn down by the early Spaniards.

So we can see that the Mexicans have a way of life and follow customs that are part Spanish and part Indian. It is this mixture of ways old and new that makes Mexico seem so different from our own country.



The Mexicans were never happy under the rule of Spain. One reason for this was that they were not permitted to do any manufacturing. Their raw materials had to be sent all the way to Spain to be manufactured into finished goods. These were then shipped back to Mexico. The cost of manufacturing and shipping, plus the taxes, made the goods so expensive that it was very difficult for the Mexicans to buy them.

MEXICO AFTER THE CONQUEST

How did Mexico fare after the conquest? For nearly 300 years after the conquest, Spain continued to rule over Mexico. Sometimes the rule was good, sometimes it was bad. It depended a great deal on what kind of king happened to be ruling in Spain. It also depended on what kind of *viceroy* or governor the king appointed to rule for him in Mexico. But it depended most of all on the laws that were made in Spain for Mexico.

We remember how the American colonists disliked English governors and English laws and English taxes. The Mexicans liked Spanish governors and Spanish laws and Spanish taxes no better. Mexicans were forbidden to trade with any country but Spain. All the products of Mexico's farms and mines had to be sold to Spain at whatever prices Spain wished to pay. All the manufactured products used in Mexico had to be bought

in Spain at whatever price Spain wished to charge. And, worst of all, every purchase or sale was loaded down with taxes and duties which came out of the pockets of the Mexicans and went into the coffers of the king.

No wonder the Mexicans finally rebelled against Spain, just as their northern neighbors had rebelled a few years earlier against England. On September 16, 1810, Mexico declared its independence.

The leader of the Mexican rebellion was a Catholic priest named Hidalgo (*ē-thäl'gō*). Although he lost his life early in the struggle, he is today regarded as one of the heroes of Mexico and is often called the "George Washington of Mexico." As in the case of our own war for independence, the Mexican struggle went on for several years before the rebels succeeded in winning their freedom.



This drawing shows some of the buildings and many of the activities of an hacienda. Can you find the church, the graveyard, the owner's house, the market place, the corral, the Indian villages, the blacksmith, the weaver, and the baker.

Before the conquest most of the Indians had been farmers. But they did not own their land as families. All land belonged to the tribe. Each family was granted the use of a small plot of ground on which to grow corn and other crops. Everything that a family produced over and above its own needs had to be turned over to the tribe. This Indian method of owning and farming the land was called by the Spaniards the *ejido* (ä·hē'-thō) system.

After the conquest the ownership of the land was taken from the Indian tribes and given to the King of Spain. The King in turn gave large grants of this land to his followers in return for favors or as a reward for valor. In each case the grant included the land, the forests, the rivers, the villages, and even the people living on the land.

As time went on, these vast estates, or *haciendas* (ä·syēn'däs), became almost like independent countries. They grew their own food, raised their own cotton, made their own cloth, and manufactured most of the products they needed.

At first the Indians were allowed to stay on their farms. The rest of the land in the grant was taken over by the new Spanish owner. But gradually the owners of the haciendas also took over the Indians' fields. After a time nearly all of the land in Mexico belonged to a few thousand wealthy Spaniards. Most of the Indians had no land they could call their own. At the same time they lost their freedom and became subjects of the Spanish landowners.

The hacienda owners became richer and richer. They lived like kings and had great houses in Mexico City and

even in Europe. Their children wore the finest clothes and were educated abroad. At the same time the Indians grew poorer and poorer. These conditions continued even after the country freed itself from Spain and became a republic.

How did the Indians and mestizos win back their land? Frequently the down-trodden Indians rebelled against their masters. One of their leaders was Benito Juárez (bě·ně'tō hwä'rēs), who has sometimes been called the "Abraham Lincoln of Mexico." He did everything he could to improve the lot of the Indian and to help him gain back his land.

Finally, only a few years ago, the Mexican government declared: "The King of Spain had no right in the first place to give away Mexican land to his followers. The hacienda owners had no right to take the lands from the Indians."

The government then set out to break up the great haciendas. It divided the land among the people, much as it had been divided in Aztec times. The ancient *ejido* system was restored in many regions of Mexico.

Today, a group of peons can go together and form an *ejido*. They must first apply for permission to the national Department of Agriculture. If the application of the group is approved, they are given the use of a tract of land.

Each member of the group is entitled to ten acres of tillable soil. He may farm the land alone or in co-operation with the other members of his *ejido*. He must pay taxes on the land, but he may not sell

or lease it; neither may he borrow money on it.

A visit to an "ejido." Early on the next morning after Señor Mendoza's fine account of Mexico's history, we visit a newly formed *ejido*. The land was once part of a great hacienda.

The mansion formerly occupied by the wealthy owner of the hacienda is now the home of several peon families and of their domestic animals. The building seems to be slowly falling to pieces. Chickens run across the patio. A burro munches in the shade at one side. Fat, little brown-skinned children, tending a herd of sheep, watch us as we walk by.

What crops are grown in the Central Plateau region? In one direction we see cornfields stretching far into the distance. This reminds us of the cornfields of Iowa or Illinois. But here in Mexico the corn does not grow so tall. Sometimes beans are planted between the rows of corn.

In another direction we see fields of

These peons are planting corn. They make a hole in the ground with a sharp stick, drop in a few grains, then kick some dirt over them. In many parts of Mexico no better ways of farming are known.

De Cou—Ewing Galloway





The maguey plant serves the Mexicans in many ways. Its heart is cooked and used for food. The strong fibers of its huge, stout leaves are woven into cloth or twisted into rope. Out of its sap are made the two main beverages of Mexico. The Mexicans extract the sap from the plant by sucking it up into a gourd. The man in this picture is emptying his gourd into a barrel tied to the side of his burro.

H. Armstrong Roberts

wheat and long rows of maguey. The maguey plant grows very slowly. Sometimes it does not reach full size for nearly ten years. The sap of the maguey, when fermented, makes a popular Mexican beverage. Sometimes the heart of the maguey is cooked and used for food. The maguey leaves are also valuable. They contain a strong fiber which can be woven into cloth or twisted into rope.

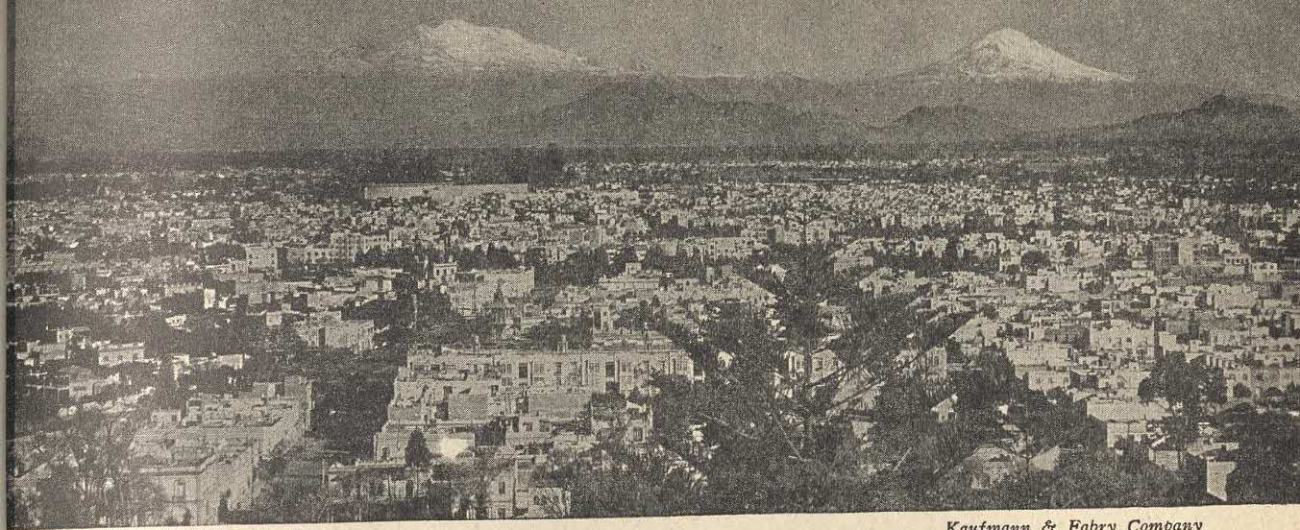
On one of the side roads we see a group of peons threshing wheat. They have spread out the stalks of wheat on the road and are driving a pair of oxen back and forth over the wheat to separate the grain from the straw. Later, after the straw has been removed, they will toss the grain into the air to let the wind blow away the chaff. The grain, being too heavy to blow away, falls back to the ground and is gathered into bags.

What is being done to improve agriculture in Mexico? We are told that not all of Mexico's farming is done in a primitive manner. The government is encouraging the peons to learn more modern methods. The schools are teaching newer and better ways, and the Department of Agriculture is sending agents

to the *ejidos* to show the farmers how to raise larger crops. Irrigation projects are also being developed in various regions of the country.

Why is irrigation important in Mexico? When we learn that most of the food needed by all of the people of Mexico is raised on the Central Plateau we wonder how it can be done in view of the primitive methods used here. But our guide explains that the land in Mexico is very fertile and that only water is needed to produce two or three fine crops every year.

During the rainy season there is enough moisture on the Central Plateau. But in the dry season, rivers dry up and the land becomes parched. In order to supply enough moisture for their fields the Mexicans have constructed dams across the rivers. Water is stored up behind these dams during the rainy season. When the rains cease and the land begins to need moisture, canals are opened and the water flows through a network of irrigation ditches which run between and through the fields. The thirsty soil soaks up the water as it flows through these ditches.



Kaufmann & Fabry Company

High up on the Central Plateau is the Valley of Mexico, the heart of this land since ancient times. From the valley can be seen the towering peaks of Popocatepetl and Ixtacihuatl. In the center is Mexico City.

YESTERDAY TENOCHTITLÁN—TODAY MEXICO CITY

While Señor Mendoza has been telling us the stirring tale of early Mexico, our bus carries us closer and closer to Mexico City, where once stood Tenochtitlán, the capital of the Aztec empire.

Why is Mexico City the most important city in all Mexico? Nearly two million people live in Mexico City, which makes it by far the largest city in all the land. Why has it grown so large? We already know one reason. It is surrounded by the richest farm lands in all Mexico. The wealth and produce of these lands naturally flow to Mexico City.

We shall see other reasons as we visit the city. We shall see that, as in ancient times, it is the seat of the government. It is also the center of education. Here is Mexico's oldest university, founded in 1553. Here live Mexico's greatest artists and scientists. Here are the homes of the rich mineowners, landowners, and businessmen—come to enjoy the gaiety and excitement of the capital. In the city are most of Mexico's manufacturing plants.

And from this center a network of railroads spreads out in all directions, bringing to the city the products of the farms and mines, and shipping to the rest of the country the products of the factories.

What are some of the interesting sights in Mexico City? Our bus reaches the top of a little hill, and there before us, surrounded by a giant ring of mountains, is the city of Mexico. We see at a glance that it is not like the large cities of our own country. There are few skyscrapers, and the whole town seems alive with color. No smoke darkens the sky.

In a short time we are driving down one of Mexico's busy streets, bound for the heart of the city. On the way we see streetcars, automobiles, and many people. The main streets are broad, well paved, and clean. Many of the side streets are very narrow. Traffic moves in only one direction on many of these crowded streets.

As we travel along, we see the better homes of the city. They are mostly two



James Sawders



Burton Holmes—Ewing Galloway

Mexico City combines the old with the new. On one street we find a row of old Spanish houses, each with its balcony and each built around a patio. A broad avenue not far away shows us that Mexico City is also a modern city—almost more modern than any in our own country. For here we find streamline apartment houses, complete with roof gardens and restaurants.

stories high, with walls of stone and adobe. These walls are painted a bright color, some pink, some green, some lavender or lilac, and some just plain white. Many of the windows facing the street are crisscrossed with iron bars. All the rooms of the houses are built around a courtyard, or *patio*. Sometimes the patios have beautiful shrubbery, fountains, and tile walks. We are told that the owners often live on the second floor and rent out the first floor.

Not all of the homes are built in the old Spanish style. We pass down one magnificent tree-lined boulevard, along both sides of which are houses, apartments, and hotels in the most modern style of architecture. No boulevard in New York or Chicago could look more up-to-date.

Our bus comes to a halt before a great plaza. What a breath-taking sight! A vast array of flower beds and grassy plots spreads before us. We realize that this must have been the plaza where the Aztec priests performed their bloody rites so long ago. On the site of the old Aztec

temple sprawls a majestic cathedral. No wonder that for many people the *Zócalo* (sō'kă-lō), as the plaza is called, is the most interesting spot in all Mexico.

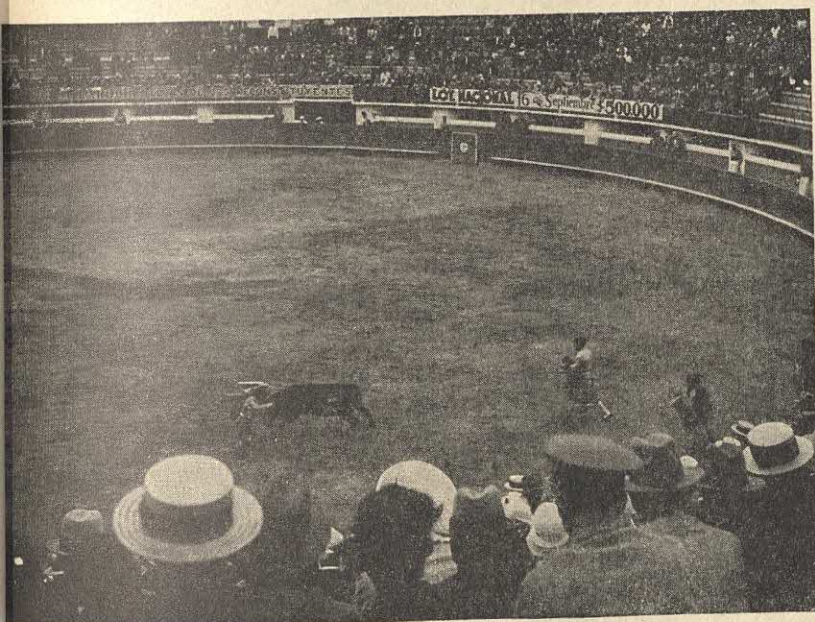
On the east side of the *Zócalo* we see the *National Palace*. This huge building is erected over the foundations of the Aztec royal palace. The Mexican president and several departments of the government have offices here. We are told that Mexico is a republic much like our own. It has a president and a legislature. The nation is made up of twenty-eight states, just as our country is made up of forty-eight. There is also a Federal District, similar to our District of Columbia, and two territories.

We wonder what has become of the canals and islands that covered this area in Aztec times. Señor Mendoza explains that the land has long since been drained and what is now left of the lake is several miles from the city.

People of Mexico City. We see many interesting contrasts in this strange city. From our bus, we notice top-hatted government officials walking along the

Here are some famous sights you would see if you went to Mexico. On almost any street you might meet a group of strolling troubadours. These men with their mandolins, violins, and native instruments come in from the mountains and wander about the town, stopping here and there to offer entertainment. They sing old songs of love and adventure, and they expect you to throw them a few coppers after they have played and sung for you.

Ewing Galloway

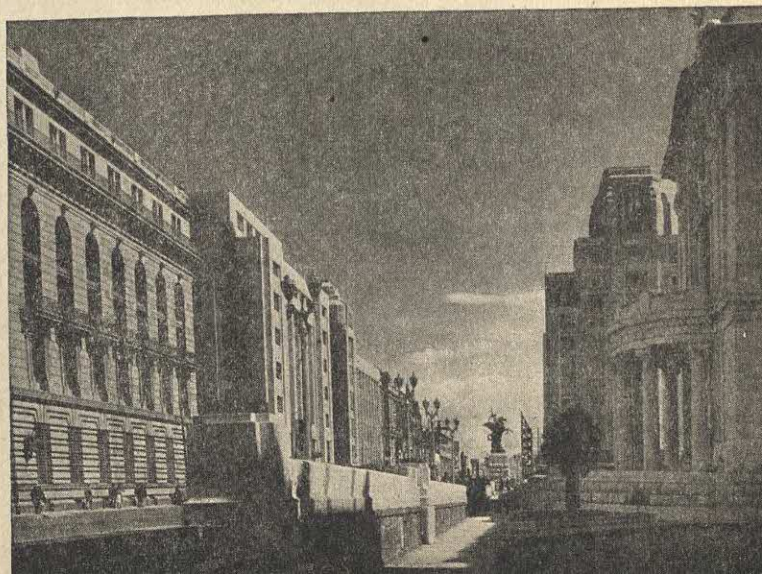


This is a bullfight. Grandstands are crowded with cheering spectators. There is a great parade. The President stands up in his box and tosses a key to the matador, who catches it in his hat. With it the bull pen is unlocked, and the fierce animal rushes forth. A banderillero comes out and sticks two or three pairs of sharp darts into the shoulders of the bull. Then come the picadors on horseback to plague the bull with pics. Finally, the exhausted and furious beast is left alone in the ring with the matador. The matador's job is to kill the bull gracefully and swiftly, with one thrust of his sword, hitting directly between the shoulder blades.

De Cou—Ewing Galloway

While many of the buildings we have seen in Mexico are old remnants from Spanish days, in Mexico City there are buildings which are as fine as any in our own great cities.

Courtesy Mexican Tourist Association



sidewalks. Men and women dressed in the latest fashions stroll past exclusive shops in which fineries from all parts of the world are sold. Mingling among these rich are the poor—barefoot Indians clad in cotton pajamas and serapes, men staggering along under great loads of baskets, women with babies on their backs. They look without envy at the bright shopwindows and at the displays in front of the motion-picture houses. We are more than pleased to observe the politeness of the people. Courtesy is the possession of all—rich and poor alike.

What amusements do the Mexicans enjoy? We pass a park in which some boys are playing baseball. Farther on we see several tennis courts and a "futbol" field, where a game much like our soccer is being played. But probably the most exciting sport of Mexico City is bullfighting. Every Sunday afternoon as many as 20,000 spectators crowd into the grand-

stand of the bull ring to watch the toradors display their skill. Early Spanish conquerors introduced bullfighting soon after the conquest, and it has remained a favorite sport of the Mexicans ever since.

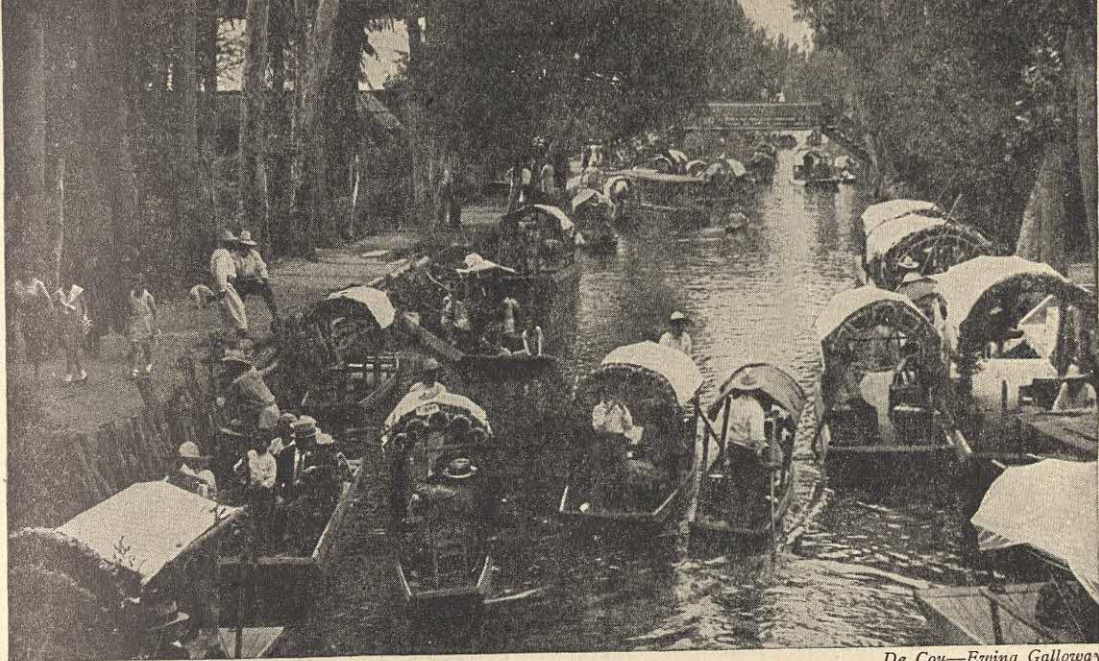
Later in the day, as we are eating our evening meal, we hear some native *trovadores* (trō'vā·thō'rēs), or wandering musicians. They stroll along the streets with their guitars, reed flutes, and whistling jugs. For a few *centavos* (sěn·tā'vōs) they will sing the old Mexican folk songs which are so popular with all Mexican people. At our request they sing the lively favorite, "El Rancho Grande."

Later, on our way to a motion-picture show, we pass the beautiful white marble National Theater, where the Mexican Symphony Orchestra is giving a concert. Large colored posters outside the building advertise the personal appearance of several world-famous singers.

Both the entrance and the inside of the



Mexico's great heritage from Spain was Christianity. Here is the beautiful cathedral of Mexico City, one of the largest in the Western Hemisphere. The original structure, built by order of Cortés, stood on the same foundations which once supported the ancient Aztec temple. It was later destroyed and rebuilt in its present magnificent style.



De Cow—Ewing Galloway

Here is one of the canals of the Floating Gardens of Xochimilco. Each of the boats bears a girl's name. Some carry flowers, others bear tempting displays of fruits and sweetmeats. As you cruise along between the islands, a music boat may draw close and play a concert for you.

motion-picture theater look just like some of the finest at home. But the feature film has been made in Mexico, with the dialogue in Spanish, so we have to follow the story through the action of the players. The comedy feature, however, comes from Hollywood, and like many Hollywood films for use in Latin America, has Spanish titles which are a translation of the English.

In Mexico City we hear so much about the *Floating Gardens*, that we decide to go out to the little town of Xochimilco (sō'chê·mēl'kō) to visit them. Long ago these gardens belonged to an Aztec tribe, who cultivated them in almost the same way as they are cultivated today.

There are hundreds of tiny islands and scores of canals—some quite broad, others barely wide enough for a canoe to slip through. Gardeners have built small huts on some of these islands. Here they grow the finest kinds of flowers, fruits, and vegetables all the year round.

The people of Mexico love to visit the Floating Gardens on Sundays and holidays. They travel up and down the canals in flower-bedecked boats. All about are floating restaurants and boats filled with articles of Indian handicraft for sale. Some of these boats, richly loaded with vegetables and flowers, look like floating gardens themselves.

As we see the islands of flowers, hear the soft music of guitars, and feel the warm, balmy breezes, we wonder if there can be anywhere a spot more beautiful.

What kinds of manufacturing are carried on in Mexico? Most of the manufacturing is done in the homes and little shops of the people. Coming back from Xochimilco, we stop at an adobe house just off the highway. A peon, in the shade of a tree near the house, is molding pottery with his hands.

Several of the clay pots and bowls are spread out in the sun to dry. Later these will be baked in a crude oven until they

become very hard. Often the pottery is afterwards painted with colorful designs.

Where do the Mexican pottery makers get their decorative designs? After our visit to the ancient pyramids, we can answer that question ourselves. Some of the designs on the pottery are just like those carved on the walls of the old temples. Other designs look like the decorations on the houses built by the Spanish colonists. Thus the designs on the pottery, like the people of Mexico, are part Spanish and part Indian.

This same strange mixture appears in all the art of modern Mexico. Even modern Mexican painters show the spirit of the bold Spanish and the bright colors of the ancient Aztecs. And modern weavers of the colorful serapes use Spanish and Aztec designs that have been handed down from father to son.

Señor Mendoza tells us that pottery

making is not the only "manufacturing" done in the homes of the people. Other products are belts, saddles, and leather goods, which are sometimes inlaid with hammered silver. Glassware and wood carvings also are among their handicraft.

What other kinds of manufacturing are carried on in Mexico? Among the most important factories in Mexico are those that turn out cotton goods. Nearly all the textiles used in the country are made within its borders. In the larger cities there also are shoe factories, clothing shops, flour mills, sugar mills, meat-packing plants, and cigar factories.

American automobile manufacturers have set up assembly plants in Mexico City. Most of the new cars in Mexico have been assembled by Mexican labor. Gas and oil for the cars are produced in big oil refineries near Tampico (täm-pē'kō), on the east coast.

Most of the products manufactured in Mexico are used to supply the needs of the people. However, some goods are exported. Shoes, women's purses and hats, and inexpensive clothing are shipped to other Latin-American countries.

What part does the church play in the lives of the Mexicans? On returning to Mexico City, we decide to visit the little village of Guadalupe (gwä'thä·lōō'pě). There we shall see the most sacred religious shrine in all Mexico.

The Aztec altars were all torn down by the Spanish priests. In their place hundreds of Catholic churches were built. So today every town has its church.

Pottery making is one of Mexico's most important home industries. The Mexicans do not have so much metal for pots and pans as we have. They use pottery instead.

Kaufmann & Fabry Company



The Shrine of Guadalupe takes its name from the picture "Guadalupe" which now hangs above its high altar. The church was built around the picture, and the town grew up around the church. The famous picture represents an Indian Virgin standing with the sun and moon and stars beneath her. Pilgrims have come here to venerate the Virgin of Guadalupe almost continuously since the day in 1531 when Juan Diego first told of seeing the vision.

De Cou—Ewing Galloway



Almost every home has a cross and almost every village its patron saint. But the most popular saint is *Our Lady of Guadalupe*, whose shrine we are now to visit.

As we enter the village of Guadalupe, we find it thronged with pilgrims, visitors from other lands, and Mexicans of every sort, including the sick, the lame, and the blind. We jostle through the crowd, passing stalls where one can buy food and religious relics. Solemnly we walk through the doors of the church, and there before us in a solid gold frame and set apart by a silver railing, is a picture of an Indian Virgin.

Why is this a holy place to the Catholics of Mexico? Legend tells us that more than two hundred years ago there appeared before a poor Indian named Juan Diego (hwän dê-ä'gō) a vision of the Virgin—an *Indian Virgin with brown skin*—who spoke in the Indian language. She asked that a church be built in her honor, and as a holy sign left an impression of her likeness on his cloak. The church was built, and it is said that the

picture we see behind the altar is like the image that appeared on Juan Diego's mantle.

Every year on the twelfth of December, pilgrims from all over Mexico gather at this church to do honor to their patron saint. It is an occasion for a great fiesta (fī-ēs'tä). There is a carnival with a merry-go-round, singing, dancing, and fireworks. It is a joyous time for everyone.

As we leave Guadalupe and its shrine, Señor Mendoza tells us that most of the people in Latin America belong to the Roman Catholic Church. It plays a very important part in their daily lives.

Why is Mexico called a treasure house of minerals? On the following day we take the road south out of Mexico City to the fascinating town of Taxco (tä's'kō). No wonder artists from all parts of the world come to this unusual village! The streets that climb up and down the side of the hill are paved with cobblestones of different colors laid in interesting designs.

At one side of the plaza is the cathe-



Treasure hidden in the hillsides gave Taxco her cathedral. This gem of architecture, with its richly ornamented towers, is a favorite of visitors to Taxco.

Courtesy Mexican Tourist Association

Señor Mendoza tells us that Mexico still produces more silver than any other country in the world. But silver is not the only valuable metal found in Mexico. Gold also is mined here. And not far from the city of Durango (dōō·räng'gō) there is a vast hill, which is 65 to 75 per cent pure iron ore. Little of the ore has been mined, however, as there is no coal near by with which to smelt it. Most of Mexico's coal mines are near the border of the United States. Copper and mercury are among the other valuable minerals produced in this country.

But the door of Mexico's treasure house of minerals has been just barely opened. All through the mountains are buried many rich deposits of minerals that have not yet been mined. Perhaps some day railroads will run into the remote sections of the country, and then, with modern mining machinery, Mexico can open wide the door to her vast mineral wealth.

dral, one of the most beautiful buildings in all Mexico. It was built long ago by a man who had grown immensely rich from the near-by silver mines.

The first people to work these mines were the early Indians. Then after the Spaniards conquered Mexico, they took over all the mines and made the Indians work for them. Great shafts, often a thousand feet deep, led down to the veins of silver. Ladders were fastened to the sides of these shafts. After the Indians had mined the ore, they had to carry it on their backs up the ladders.

Mining is one of Mexico's most important industries. Two thirds of the country's exports consist of metals. Of these silver and gold are the most important.

Underwood—Stratton



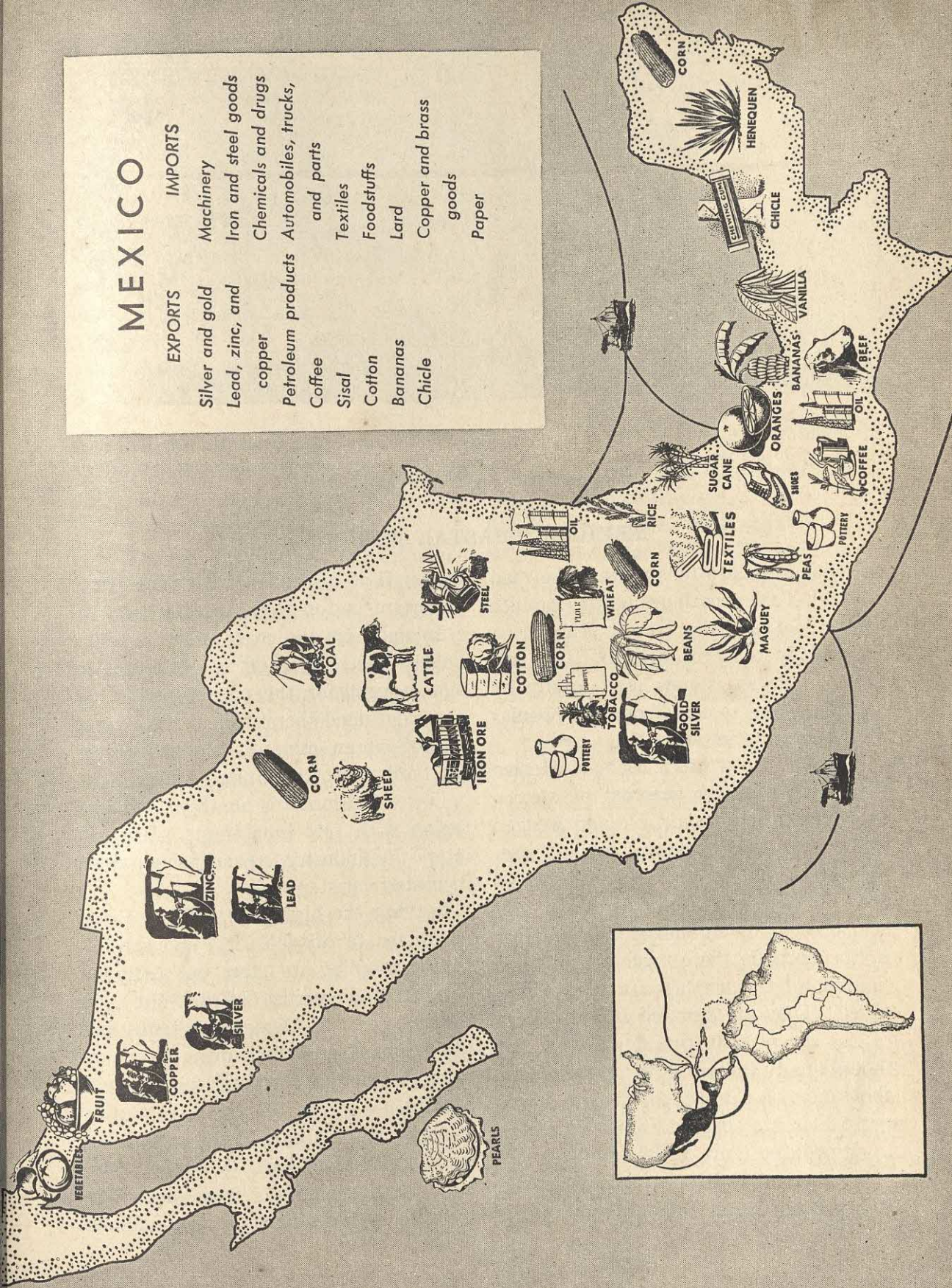
MEXICO

EXPORTS

Silver and gold
Lead, zinc, and copper
Petroleum products
Coffee
Sisal
Cotton
Bananas
Chicle

IMPORTS

Machinery
Iron and steel goods
Chemicals and drugs
Automobiles, trucks, and parts
Textiles
Foodstuffs
Lard
Copper and brass goods
Paper





Paul's Photos

The lowlands along the west coast of Mexico are so narrow that in some places the mountains come right down to the sea, as is shown in this photograph. These lands are much drier and less densely populated than the eastern lowlands.

MEXICO'S COASTAL REGIONS

Señor Mendoza tells us that the road through Taxco continues on to Acapulco (ä'kä·pōōl'kō), the largest seaport on the Pacific coast of Mexico. The new paved highway is now used mostly by tourists going to and from the popular seaside resorts in Acapulco.

What is the western coast of Mexico like? The western seacoast of Mexico is a long, narrow strip of land wedged in between the mountains and the sea. One could fly up and down this coast land for hundreds of miles and hardly see so much as an Indian village. Only in the north is there much farming.

Most of the northern farms are irrigated. They are situated in the valleys of the rivers that run down from the mountains to the sea. During the winter thousands of carloads of tomatoes and vegetables are shipped from this region to cities in northern United States.

We find the delta of the Colorado River on our map. Here are many truck

farms; it is also one of Mexico's most important cotton-growing regions.

Inland from the coast is the Sonoran Desert—hot, dry, and of little use to man, except for the copper and other minerals found there. All of the copper from Sonoran mines is shipped across the border into the United States.

Lower California is another desertlike region with few inhabitants. Its only interesting industry is pearl fishing along its eastern coast.

Leaving the highlands. From Taxco we return to Mexico City, and the following morning we start out early on our trip to Veracruz (vē'rä·krōōs'), on the east coast of Mexico. Presently our bus begins a long climb over the mountains that almost surround the valley of Mexico.

As we reach a pass in the mountains, we pause and look back. Señor Mendoza says it is the same spot from which Cortés got his first glimpse of the fabulous

What is this crude machine? It is an old sugar mill. The beam at the top is pulled "round and 'round" by oxen, thus turning two rollers. The peon thrusts the stalks of cane, one by one, through the rollers to extract the juice. The juice pours out into the tub and is later refined into sugar. Mills of this sort are used all over southern Mexico and the coastal regions, but in other localities there are enormous modern mills, some of them co-operatives.

Pix—Kirkland



city of Tenochtitlán. Farther on we begin to wind down, out of the pine forest onto the broad, high plateau.

In the distance is the city of Puebla (pwā'blä), with its dazzling white old colonial churches and homes. This is the center of a rich farming and fruit-producing area. Plums, apricots, apples, and all our familiar cold climate fruits are grown here. Over our shoulders we catch exciting views of two snow-capped peaks, Ixtacihuatl (ēs'tä·sē'wä·t'l) and Popocatepetl.

East of Puebla the plateau becomes drier and drier. Soon we cross a ridge and begin to leave the plateau. We plunge downward in what proves to be the most interesting part of our trip.

At first we see all about us the pine forests of Mexico's Eastern Sierra Madre. But we travel downward so fast that in a few minutes we are surrounded by jungles—the jungles of the low coast lands! Sweaters come off; we wipe beads of perspiration from our faces. We are in the tropics at last!

In the tropics. All about us we now see tall coconut palms, the umbrellalike

rain tree, and a beautiful tree with large waxy leaves and fragrant, funnel-shaped flowers. One of the most striking sights is the silk-cotton tree, which grows to 120 feet in height and is sometimes 30 feet in diameter.

Hanging down from many of the trees are slender vines, or *lianas* (lê·ä'näz). These vines are commonly used by the natives to tie together the bamboo walls of their houses.

As we enter Veracruz, we remember that it was near here that Cortés burned his ships before marching to Tenochtitlán. The road over which we have come from the capital is the same route he followed on his march to Tenochtitlán.

How do the people of the Gulf Coastal Plain make a living? Few people live on the Gulf Coastal Plain. Of those that do, most are farmers. But farming is very difficult because of the heavy rainfall and the hot weather of the southern coast. Jungle growths are hard to clear away for farm lands. The lowlands swarm with insect pests. Malaria and other diseases are very common.

But in spite of this the Gulf Coast pro-

duces a great variety of fruits and other products. Early the next morning when we visit the Veracruz market, we see several kinds of bananas, from very small ones called "lady fingers," to huge red ones, pineapples, grapefruit, oranges, and a dozen other fruits whose names we cannot remember. There are long stalks of sugar cane which Mexican boys and girls like to chew for the sweet juice. Everywhere are baskets of rice, coffee, and tobacco.

To the north, around the port of Tampico, many Mexicans make their living working in the oil fields. Years ago this was one of the most important oil fields in the world. It was a source of much revenue, as the oil was shipped to the United States and Europe. Today though many of the wells have run dry there is still enough oil for Mexico's own needs, plus some for export.

We wish it were possible for us to travel east and see how the people of the Yucatán Peninsula make a living. But this region is cut off from the rest of the country by vast swamps and jungles, and we should have to go by muleback, plane, or ship.

If we went by plane, we should see the jungles finally give way to enormous fields of a plant called *henequen* (hě'n-ě-kěn). Henequen looks much like maguey. It is from the sturdy leaves of henequen that the peons obtain the fiber called *sisal* (sī'sul). Sisal is used to make rope and binder twine. The harvesting machines of the United States use binder twine to tie grain into bundles.

For what is Yucatán famous in history? Yucatán was one of the homelands of the Maya (mä'yä) Indians. Centuries before the coming of the Spanish, even before the Toltecs and the Aztecs, the Maya Indians ruled an empire that spread over Yucatán and most of Central America. The Maya civilization was then the most advanced in the Western Hemisphere. The Mayas built hundreds of fine temples and beautiful palaces.

One of the Maya's great cities in Yucatán was called Chichen Itzá (chě'-chěn ět-sä'). What an amazing place this must have been a thousand years ago! Scientists have recently uncovered wonderful pyramids crowned with elaborately carved stone temples. There are ruins of towers, and even of courts where the Mayas played a game similar to our

Peons on the great henequen plantations in Yucatán spread the sisal out in the sun to dry. Later it is baled and sent to factories in the United States, which make it into binder twine for use on our farms at harvesting time.

James Sawyers



Here is the main pyramid and temple of the ancient Mayan city of Chichen Itzá. In the background are endless miles of forest now growing over the farm lands of the once flourishing Mayas. In time the great Mayan Empire disappeared, and the jungle came back and covered all traces of its civilization. Ruins of the pyramid of Chichen Itzá were rediscovered a few years ago by American scientists, who have restored it to its original condition.

Courtesy Pan American Airways System



basketball. We are sorry not to be able to visit Chichen Itzá, but we plan to explore Mayan ruins in Central America.

Leaving Mexico. For many miles our train follows a route through the low coastal country south of Veracruz before turning inland to higher ground. We pass through village after village. Some houses are of adobe, with tile roofs. Others are mere shacks of bamboo poles tied together with vines.

Our train, too, is strange. It is made up of fifteen freight cars, four second-class passenger coaches, and one first-class coach. The second-class cars are the most interesting. Rude wooden benches serve as seats. But one seldom gets more than a glimpse of the seats, for they are piled high with colorful bags of fruits, flowers, vegetables, and baskets of live chickens.

Squeezed in amidst this odd-smelling baggage are the passengers. One cannot say which is the more interesting, the passengers or their baggage. Nearly every man carries a long knife, or *machete* (mä·chä'tâ). We are told that they are made in the United States and have become the most common tool in Latin America. The peons use them to

peel pineapples, to cut paths through the jungles, and as weapons against snakes and other animals of the forest.

For two days and a night we travel on the same train. It climbs up from the coast to a high level plain stretching for miles across this narrow part of Mexico, which is known as the Isthmus of Tehuantepec (të·wän'të·pëk'). This is an important cattle country and large herds are seen from time to time grazing on the luxuriant tropical grasses. It reminds us of Texas.

Then our train leaves the isthmus and plunges south into the jungle country along the Pacific coast. We are now ready to leave Mexico and visit Central America — the *Miniature Countries*. But before we say good-by to our guide, we ask him one last question.

Have Mexico and the United States always been "good neighbors"? Señor Mendoza does not answer the question at once, but thinks a few moments instead. At last he says, "Most Mexicans today think the United States is a good neighbor, but they have not always thought so.

"Do you remember reading in your history books about the war between

Mexico and the United States in 1846-48? Those were bitter years for Mexico. Our land was overrun by your soldiers and much of our territory was lost, including most of the land that now makes up your great southwest. For years afterwards hard feeling existed between Mexico and the United States.

"Much later American businessmen began to spend huge sums of money in Mexico to develop mines and oil fields. At first the Mexicans thought this would be a good thing for their country, because they themselves had no money with which to dig mines and drill wells. They were happy to see the new mines and the new wells pouring forth their riches.

"But they did not remain happy for long. They soon began to see that the gold, silver, copper, and oil were making the Americans rich while they themselves were losing some of their most valuable resources. They felt too that the Americans paid very low wages to the peons who worked in the mines.

"There was another cause for trouble. After Mexico won her freedom from Spain back in 1821, she set up a government much like that of the United States. But very few of our people had the education necessary to run such a government. Very few of them had ever taken any part in the old Spanish government, and they did not understand the workings of democracy. So elections were often decided as much by 'bullets' as by 'ballots.' The candidate who had the strongest army usually became president.

"There were frequent revolutions and wars and constant quarrels over the control of the government. To make matters worse, American property owners in

Mexico often took part in these quarrels by supporting one side against another in order to win favors or special benefits for themselves. It is said that on some occasions they even started revolutions in order to oust presidents who were not friendly to their interests. You can see that most patriotic Mexicans would not welcome such interference with their affairs.

"There was still a fourth cause of hard feeling between Mexico and the United States. You remember learning how the government of Mexico took over the great haciendas and divided the land among the common people. Mexico also took over the oil fields. Some of these big estates and nearly all the oil fields were owned by foreigners — Americans, Englishmen, Italians, and Spaniards. Their property was taken along with the rest.

"Of course, the foreigners who had money invested in the farm lands and oil fields were furious, even though the Mexican government did promise to pay for them. It looked for a time as though there would be trouble. There were many threats in the American papers, and this of course made the Mexicans angry. 'After all,' we said, 'Mexico is our country, and these things are being done according to the laws of our land. We can't tell the people of the United States what laws they should make. Nor can they tell us.'

"Now," continued Señor Mendoza, "I am almost through with the bad side of my story. The people of your country have given us one other reason for disliking you. The United States is a very rich and powerful country. It has mil-

Our train no sooner stops than we are besieged by a horde of vendors selling food, drinks, serapes, and other kinds of merchandise. This man is selling tamales.

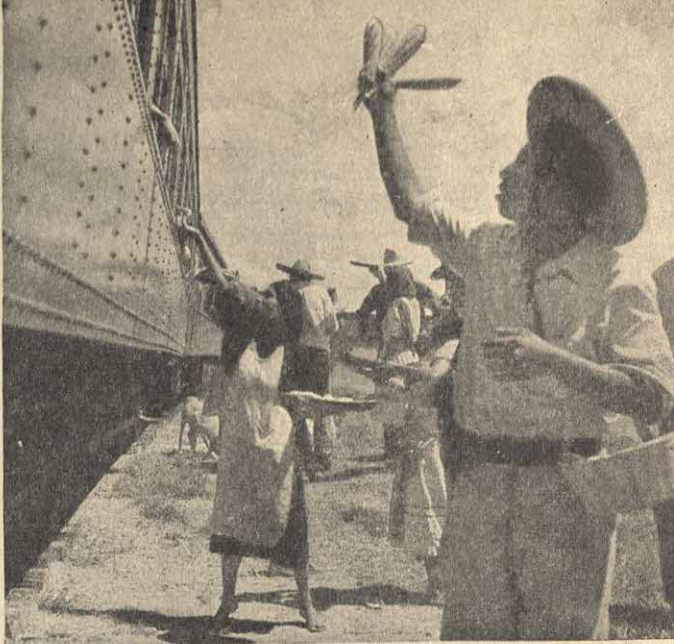
Lofman—Pix

lions of automobiles while we have only thousands. Your people have better clothes, finer houses, faster trains, and greater resources. All these things we know. But the Americans sometimes like to brag about these things and make fun of our simpler ways of living, and of our old Spanish or Indian customs. This we do not like.

"Your people should try to realize the handicaps we have had. They must realize how poor we are, how little good farm land we have, how difficult it is to build roads through our mountains, how the heat of the tropics robs some of us of our energy, how a few rich landowners for years lived in idle luxury while most of our people went without schooling and could not even learn to read and write. Perhaps if Americans had known more about our problems they would have been more sympathetic.

"And of course my own people have been wrong about many things too. We have not always been "good neighbors" ourselves and must in fairness accept a share of the blame.

"But already we are entering a new era. A wonderful change has come about in the attitude of our two nations. The government of the United States is now truly a 'good neighbor' of Mexico, and is doing everything possible to help maintain a stable government. It respects our right to make our own laws and rule ourselves without interference. It is loaning us money to build roads. It is helping us



solve some of our economic problems by buying our products at good prices. Over three fifths of our foreign trade is with the United States. You are the best customer for our silver, gold, lead, zinc, sisal, bananas, and coffee. Your tourists spend thousands of dollars with us each year.

"You can be sure that we Mexicans appreciate these things. Most of our own imports, machinery, engines, farm implements, cotton goods, and automobiles come from the United States. Mexican students who formerly would have gone to Europe to complete their education, now attend your own great universities. We like the 'Good Neighbor Policy' and are trying to do our share to make it succeed."

A few minutes later we bid our guide good-by and thank him for showing us his fascinating country.

"*Adiós, y buena suerte* (ä·thê·ōs' ē bwā'nä swēr'tâ)," he calls, as our train pulls slowly into the station. ("Good-by, and good luck.")

YOUR ACTIVITY PROGRAM

Now that you have read what the text has to say about Mexico, you are ready to do the interesting activities prepared for this unit. Each activity is included for a definite purpose, but no one is required to do all the activities included under *Enriching the Understandings*. Each pupil will find it worth while to do as many of the activities as he has time for.

Solving the Problems

A. *Recognizing the Problems.*

1. There are thirty different problems in this unit. What are they? Write them down in your notebook.
2. What problem do you consider to be the most interesting? Be ready to explain your choice.
3. Which kind of problems interest you most, those that belong to history or those that belong to geography? How is history different from geography? Which of the thirty problems presented in this unit do you think deal with geography and which with history? Be able to tell why.

B. *Gaining the Understandings.*

1. Be ready to give brief answers to each of the following questions:

How do the Sierra Madre Mountains divide Mexico into distinct regions?

How will the Pan American Highway assist our Good Neighbor Policy?

Why are few people to be seen on the streets of Mexico in the early afternoon?

Why is there much sickness in the small villages of Mexico?

How do the methods used by Mexican farmers in marketing their products differ from the methods used by farmers in the United States?

In what ways did the Aztec capital resemble a modern Mexican city?

Why is corn the chief crop grown in Mexico?

What bold, desperate chances did Cortés take?

How did Cortés more than double his strength in men and equipment?

Why did some of the Indian tribes help Cortés conquer the Aztecs?

How did the conditions of the Indian farmers change after the conquest?

How did the Mexican government break up the great haciendas?

What makes the Zócalo one of the most interesting spots in Mexico?

What are the most important kinds of manufacturing carried on in Mexico?

Where do we find the best farming country in Mexico?

What are the principal products of the Gulf Coastal Plains?

How has the attitude of the Mexican people toward the United States changed during recent years?

2. The following statements are numbered. Write these numbers on a piece of paper and opposite each number indicate whether the statement it represents is TRUE or FALSE. Use a plus sign (+) to indicate a TRUE statement, and a minus sign (—) to indicate a FALSE one.

1. Very little rain falls in northern Mexico.

2. In most Mexican villages and small towns, drinking water is delivered from house to house by water carriers.

3. Very little corn is grown in Mexico.

4. The kitchen is one of the most important rooms in the houses of Mexican villages.

5. The Mexican government is building schools in all parts of Mexico.

6. Most Mexicans love to bargain.

7. Many of the people in Mexico are very poor.

8. The Mexican peons have almost no furniture in their homes.

9. Only wealthy Mexicans wear serapes.

10. Mexico's Central Plateau has little rain and very poor soil.

11. The first highly civilized Indian tribes in Mexico were the Aztecs.

12. Aztec priests were of real service to the people.

13. Aztec schools were chiefly for the poor people.
 14. The governor of Cuba caused Cortés much trouble.
 15. Today, Indian and Spanish ways are intermingled.
 16. The Mexicans had no real reasons for rebelling against Spain.
 17. At one time nearly all the land in Mexico belonged to a few thousand wealthy Spaniards.
 18. Mexico is a republic much like our own.
3. What do these words bring to your mind? Tell the class what each one means.
- | | |
|------------|----------|
| tamales | peons |
| haciendas | mestizos |
| trovadores | tropics |
| maguery | frijoles |
| sombrero | ejido |
| siesta | patio |
| plateau | henequen |
| tortillas | serape |
4. After reading the unit on Mexico, you should have gained as many general understandings about this country as there are problems presented. Write the understandings you have gained about Mexico. To do this you will have to think of the problems. Be sure you have an adequate and well-stated answer for each one.
 5. Using the outline form suggested in *Your Activity Program* for the first unit, prepare an outline of the first five "understandings" of Unit Two.
 6. Pick out two other "understandings" in this unit that are of particular interest to you and prepare an outline of them.
 2. Make a list of articles used in the United States that come from Mexico. Add as many of these articles as you can to the collection you started in Unit One.
 3. Select a group of pupils to dramatize one of the stories you have read about Mexico. Each of the players should prepare his own Mexican costume.
 4. Make some clay bowls and decorate them with Aztec designs.
 5. Make a relief map with papier-mâché on plywood, showing the Y-shaped mountains, the Central Plateau, and the low coastal plains.
 6. Draw a line on an outline map showing the route you would take if you were to take a trip to Mexico City from your own home. Draw pictures of some of the interesting sights you would see in Mexico.
 7. As a class project, plan a visit to Mexico City. Begin by deciding as a group what sights you would most want to see. Then as you make your imagined visit, let the members of the class take turns acting as the sight-seeing guide for your party. One student could start out by describing the view of the city and its ring of mountains. A second could continue with a description of the *Zócalo*. Others might tell about the people, the amusements, the *Floating Gardens*, and so on. Ask questions about the sights being described. If a question is asked which the guide cannot answer correctly, a new guide may be chosen from among those who can answer the question. Use information obtained from your outside reading as well as from the text.
 8. Have different members of the class give short oral reports on additional information they have gained by outside reading, or by talking with someone who has traveled in Mexico, about the following:

The Toltecs

The Aztecs

The new government schools

1. On page vii you will find many interesting books about Mexico. Read as many of these books as you have time for, and, as you read, be on the watch for any new information relating to the "problems" and "understandings" of the unit. Tell the class about the new information you gain from your outside reading.

9. Make a card file of the books and pamphlets you have read concerning Mexico and write a short statement on each card telling whether you enjoyed reading the material or not, and why.

Applying Your Knowledge

After carrying out the various suggested activities on Mexico, you should be able to make an outline of the information that belongs under the following statement:

The United States and Mexico should be good neighbors.

Include in your outline references to imports and exports, travel, national defense, exchange of ideas, art, music, stories, scientific and medical discoveries. Be sure to bring out the benefits to both Mexico and the United States from the Good Neighbor Policy.

Forming Opinions

In the preceding unit you decided whether you agreed or disagreed with four opinions that were given there. This time you are asked to state your own opinions on several subjects suggested by the unit. Before expressing your opinions, however, it might be wise to do some more reading and thinking on the subjects.

The motives of the Spaniards in their conquest of Mexico.

The character of Cortés.

The breaking up of the haciendas.

Bullfighting versus hunting.

The success of our Good Neighbor Policy.



Ewing Galloway

There are many very modern cities in Central America. This is a street scene in Guatemala City, the capital of Guatemala. You cannot miss the policeman on duty, and do you see the sign advertising sombreros? Notice the cleanness of this street and the whiteness of the buildings. Compare this picture with the picture of the capital city of another Central American country, found on page 76.

3. Central America—Miniature Countries

Away we go to Central America!

Quickly our bus moves out of Tapachula (tä'pä·chōō'lä), Mexico, and heads southeast over the Pan American Highway to the border. The day is hot, but everybody is looking forward to an enjoyable trip.

At first we busy ourselves getting acquainted with our fellow passengers: a coffee grower, a salesman for a Mexican company, and several students returning from the university in Mexico City. One of the students was on the train with us coming down to Tapachula. His name is Carlos Talavera (tä'lä·vā'rä), and he says he is a native of Central America.

When we urge Carlos to tell us something about Central America, he laughs and exclaims:

"All right, it is now 'Guide' Carlos speaking—and in his very best English, I hope!"

What are the principal features of Central American geography? Carlos first tells us to turn to our map. There we see that Central America is chiefly a mountainous region, with steep slopes running down to low plains along both coasts.

The eastern coastal plain is a hot, damp jungle. In some places this jungle is so dense that its only inhabitants are monkeys, brilliantly colored birds, fierce

jaguars (jäg'wärs), reptiles, and insects.

Inland lies a range of mountains — part of the same range that we saw while visiting Mexico. Near the western coast the mountains reach their greatest height. Here the peaks are nearly all volcanoes. Some of these volcanoes have been dead for hundreds of years. But others are only sleeping and may come to life at any moment, spreading destruction over the countryside. Many times in the past, volcanoes and earthquakes have destroyed whole cities in Central America. But these volcanoes have been a blessing, too. The gray ash they throw off contains chemicals that help to make remarkably rich soil.

The western coastal plain is narrower and more regular than the eastern coastal plain. However, in many places it has the same sort of hot, wet jungles, inhabited only by wild animals.

Most of the people of Central America

live in the central highlands. There, because of the altitude, the climate is temperate and very pleasant.

What has been the history of Central America? Carlos says that this region was inhabited long, long before the coming of the white man by the Maya Indians, the same group of Indians that inhabited Yucatán.

Soon after the Spanish conquest of Mexico, Hernán Cortés sent one of his captains, Alvarado, to Central America to search for gold and silver. The expedition found a few mines, conquered the Indians, and brought the region under the rule of Spain. Just as Mexico suffered under Spanish rule, so did Central America.

Finally, in 1821, the people revolted, and most of Central America gained its freedom. The territory was broken up into several small countries. How many are there now in Central America?

GUATEMALA—LAND OF ETERNAL SPRING

Ten miles southeast of Tapachula we reach a river which forms part of the border between Mexico and Guatemala (gwä'tä·mä'lä). A new bridge spans the river, but before we can cross, a guard inspects our passports and then returns them to us with a courteous "*Muchas (mōō'chäs) gracias, muchachos.*"

We now are free to cross into Guatemala, the first country we shall visit in Central America. What large city in the United States is due north of Guatemala?

On the Guatemala side our passports are inspected again. Then we begin a long climb toward a row of mountain peaks and volcanoes that tower high above us like a great wall.

The first part of our road leads us through shady lanes between coffee trees and a great variety of other tropical plants. The climate is very warm and moist. But now our road seems to be climbing a ladder straight into the sky. Up, up, we go, so fast that we have to gasp for breath. It grows colder and colder. This is the most thrilling ride we have ever had.

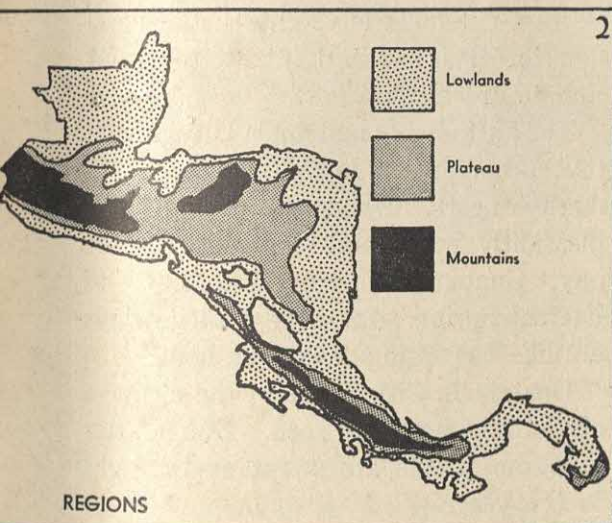
Who are the inhabitants of Guatemala? We pass dozens of Indians struggling along under great loads of fruit, pottery, or textiles. Every one is dressed in strange, colorful costumes. About noon we arrive in Quezaltenango (kä·sä'l'tä·näng'gō), Guatemala's second larg-



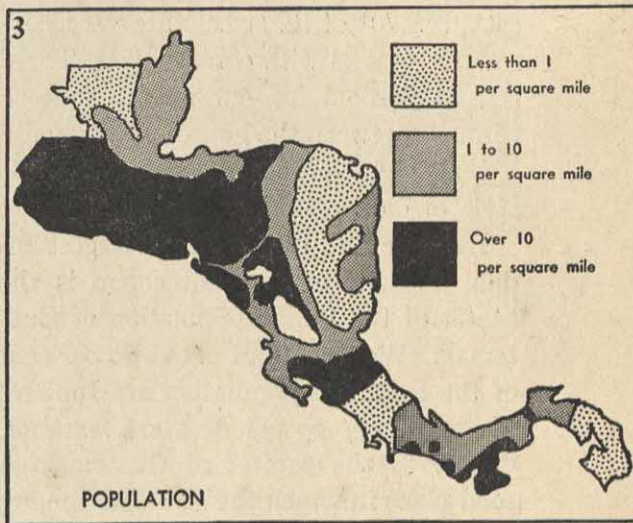
1. **CROSS SECTION.** One could make cross sections of Central America in several places, and each one would look different. Compare this cross section with the regions map below. What part of Central America do you think this cross section represents?

THE STORY OF CENTRAL AMERICA TOLD BY MAPS

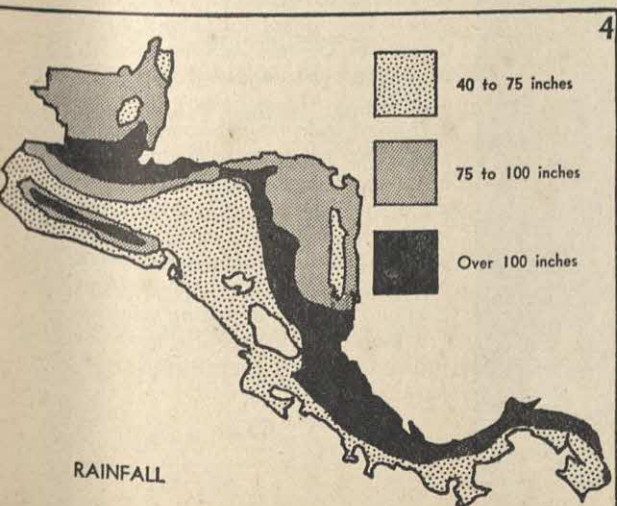
2. **REGIONS.** The coast lands of Central America are lowland areas, and most of the interior is highland or mountain. How does this map compare with the regions map of Mexico on page 23?



3. **POPULATION.** Do most of the people of Central America live in the highlands or the lowlands? Do more live on the Pacific than on the Caribbean side of Central America? Can you tell why?



4. **RAINFALL.** The diagram shows that the heaviest rainfall in Central America is on the Caribbean coast. Does this help explain why few people live on this coast? Are there any arid regions in Central America, or is there sufficient rainfall to grow crops everywhere?



5. **SIZE.** Compare the size of Central America with that of the United States. The U. S. is fourteen times as large and has fifteen times as many people. Notice on the globe how Central America has the appearance of a knotted cord tying together two great continents.





Weaving is a very important activity of the Indian women. In this picture the mother is teaching her older daughter to weave. The younger daughter watches closely, for she too will soon be learning to weave. Notice the intricate designs woven into the blouses and skirts of these Indians. By the designs one can tell from which village the Indians come.

Ralph Hancock

est city. All of its streets are very narrow and paved with cobblestones. There is barely room for our bus to squeeze through between the houses. Each house is built right out to the sidewalk in the style of old Spain.

Here we find the country's largest Indian market, for Quezaltenango is the center of the Indian population of Guatemala. We learn that about 60 per cent of the country's population are Indians, while another 25 per cent are *mestizos*.

Why is the capital of Guatemala a good place in which to live? Continuing southeastward, we reach Guatemala City at the end of the day. How well the peo-

ple of Guatemala have chosen the location for their capital! Its setting and climate are magnificent.

The altitude of Guatemala City is such that although it is in the tropics, its climate is nearly always cool at night and pleasantly warm and sunny during the day. Guatemala is truly the "Land of Eternal Spring," for nearly all its days are like our spring days back home.

Guatemala City is one of the cleanest cities we have ever seen. Don Carlos says the streets are swept every night in the year.

A visit to the government buildings shows us that Guatemala is a very mod-



All people have their own music and their own musical instruments. The Indians of Central America are no exception. The highland musicians in this group have both native and European instruments. Some of the songs they play are folk songs that have come down from ancient Indian times. Other pieces have been taken from European music. But the white man cannot always recognize his own music after it has been changed to fit the Indian's instruments and native rhythms.

Ralph Hancock



Mrs. Branson De Cou

These ruins give us some idea of the tremendous size of the palaces and monasteries and public buildings of ancient Antigua. After the earthquake which destroyed these buildings, the capital was moved. Today a corner of the ruins is used by the Indians as a market.

ern country. It is carrying out a program of better schools and highways. In fact, Guatemala has one of the best systems of education among the Central American countries. Every boy and girl is expected to attend school. One of the subjects taught in nearly every school is English.

Where was the first capital of this region? Our guide says there is a city about twenty miles from the capital that we should visit while we are in this part of Guatemala. Arrangements are quickly made, and soon we are headed for Antigua (än·tē'gwä), the first Spanish capital of Central America.

On the way we are told that Antigua was founded by the Spanish conquerors who were sent down into Central America

by Cortés. Their leader, impressed by the high, narrow valley nestling between tall volcanic peaks, chose it as an excellent site for his capital.

Under Spanish rule, Antigua grew until it was the greatest city in Central America. Of all the cities in the New World, only Mexico City was larger. There were eighty large churches and monasteries. There was a university and hundreds of fine palaces.

But as our bus enters the city today, we are much surprised. Everything is in ruins. There are whole blocks covered with the ruins of great churches and fine homes, some half-buried under debris of crumbling plaster, bricks, and weeds.

We turn to Carlos. He explains that in 1773 an awful disaster occurred which



Photos by Ralph Hancock

The life of a *chiclero* is not a very comfortable one. The jungle in which he works is infested with mosquitoes and snakes. The temperature is always high, and much of the time he works in a heavy rain. At the beginning of the season he gashes his trees, and after that he must collect the sap several times a day and take it to camp, where it is boiled down to make chicle for our chewing gum.



left the city as we see it today. There was a severe earthquake, accompanied by an eruption from the volcano behind the city. The capital of Central America was destroyed. The people then decided to move their capital to safer ground, and the present site of Guatemala City was chosen.

What is the principal industry of northern Guatemala? Back in Guatemala City we learn that a great jungle covers the northern part of Guatemala, which is called Petén. Our guide asks if we would like to visit Petén and see where chicle, or raw chewing gum, comes from.

Carlos explains that we can travel to Petén by muleback or by air freighter. As the trip by mule would take about four weeks, we decide to go by airplane. It carries us there in less than one hour.

Not far from where we land on a jungle clearing, we see a group of *chicleros* (chē·klā'rōs), or chicle gatherers, at their work. Armed with a long machete and a rope, and wearing climbing spurs on his heels like those worn by telephone repairmen, the *chiclero* climbs to the very top of the tall *sapota* (sä·pō'tä) tree. The rope is tied about his waist and the tree for safety.

The *chiclero* cuts long cross gashes from top to bottom of the tree. At the base of the tree he sets a little rubber bag to catch the milky sap as it oozes from the cuts. Later, we see him boiling this sap in large copper kettles over a slow fire.

Boiling removes most of the water and turns the sap to a substance much like putty. It is then molded into large bricks and carried to the coast on the flying



Ralph Hancock

This latest model American transport plane is ready to take off from a jungle airport. It will carry every possible kind of freight, from barefooted peons and prospectors to raw chicle and mining equipment. Practically everything that is to be transported in a hurry is carried by plane because of the great difficulty of moving cargo over poor roads and rough mountain trails.

freighters. Much of the chicle produced in Petén is carried long distances by shoulder pack or mule before it reaches the nearest airport. From the coast, the chicle is shipped to the United States, where it is manufactured into sticks of chewing gum.

How is the airplane solving the problem of transportation? Don Carlos says that there are very few railroads in Central America. And there are very few good roads, because the land is so rough. So thousands of tons of freight and hundreds of passengers are carried by airplanes. Great mining machines, agricultural products, and even livestock are carried over the mountains and from town to town by plane.

How do the people of Guatemala make a living? We have seen that a few men work in the forests of Petén gathering chicle. Others are employed in lumber-

ing, and another small number are engaged in manufacturing. We must remember that Guatemala has no large industries.

The native Indians spin and weave most of their own clothing. They also make textiles and pottery to sell in the markets. A few clothing and shoe factories supply the clothes worn by *mestizos* and white persons. There are also sugar and flour mills.

Most of the manufactured goods used in Guatemala come from the United States. Automobiles, radios, trucks, medicines, glass, paper, and plumbing supplies are imported from our country. In exchange we buy from Guatemala all of its chicle and bananas, and most of its coffee.

The people are mainly farmers. Coffee is Guatemala's principal product and is grown chiefly in the temperate plateau

regions. At the higher altitudes wheat, potatoes, apples, and corn are raised. In the lowlands sugar cane, tobacco, cotton, and tropical fruits are cultivated. Along the coasts there are large banana plantations.

Carlos adds that corn, beans, rice, and potatoes are important items in the diet of the people. But all of our common vegetables grow in Guatemala. In the markets, beets and lettuce and cabbages are often piled side by side with strange tropical vegetables.

Leaving Guatemala. In the evening we go for a stroll around the *Parque Central* (pär'kâ sën·trä'l'), or Central Park, and listen to the music of the

national symphony orchestra. There are many people enjoying the music and the cool flower-bordered paths of the park. Carlos introduces us to several of these people. We find them all very friendly. It seems that everyone likes to shake hands with visitors from the United States.

The only name we remember is that of an American pilot, Bob Harrison, who works for the local air line. He is one of the pilots who fly the chicle out of the Petén jungles. Bob tells us he is making a trip to British Honduras tomorrow and invites us to go along. This is the one Central American country that is not a republic.

BRITISH HONDURAS—COLONY OF GREAT BRITAIN

Leaving Guatemala City, Bob Harrison points the nose of his plane northeast. Soon we are roaring over some of the same jungle we saw on our trip to Petén. This thick wilderness stretches from Guatemala right across the boundary line and into British Honduras.

Why is this country unlike other Central American countries? Until about 100 years ago this area was a part of Guatemala. During the time when all Central America was under the rule of Spain, British lumbermen had obtained permission to cut mahogany and other timber from the forests. There was already on the coast at that time a colony of "retired" British pirates. Together the pirates and the lumbermen established a permanent settlement, which became known as British Honduras. Great Britain soon took an interest in developing the region, and in 1836 its right to the country was officially recognized. But many

Guatemalans still feel that this region should be a part of Guatemala.

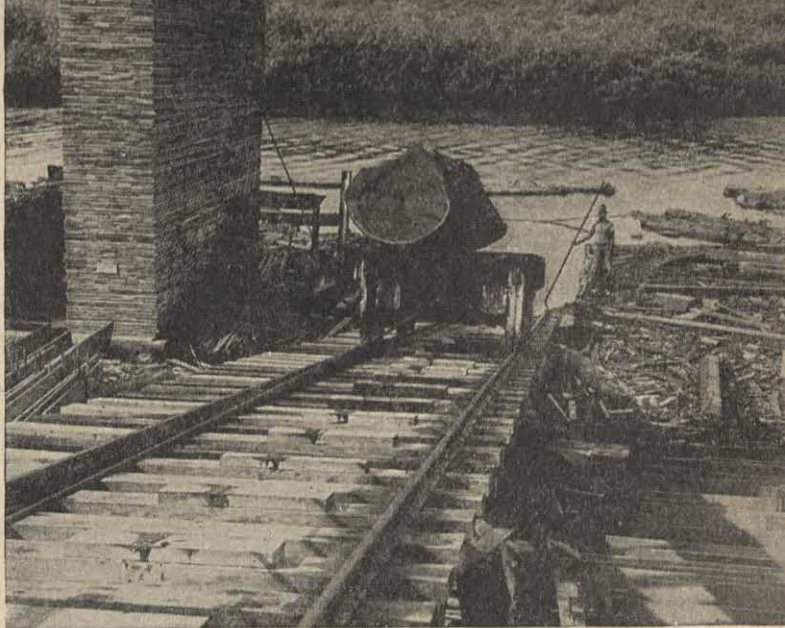
Now we are coming to Belize (bě·lēz'), the capital and largest city. It is on the low coastal plain, but cool breezes blowing in from the Caribbean Sea temper the hot climate.

On landing, we find that almost one third of the country's population lives in Belize. And most of the people speak English, even the natives.

What is the chief industry of British Honduras? This country is the center of the mahogany and logwood trade. In this region some mahogany trees are more than six feet thick. A single large mahogany tree has been known to yield several thousands of dollars' worth of wood. But often the cost of getting the logs to market is more than they are worth. Sometimes a special road must be cut through the jungle before the logs can be brought to the coast.

Miles of mahogany stacks tower along the water front at Belize. The logs are cut in the jungles of British Honduras and allowed to float down the river to Belize. A cable car pulls them from the river to the sawmill, where they are cut into boards like those you see standing on edge, drying, at either side of the track. Later they are piled into tall stacks, similar to the one near the riverbank, for further drying.

Ralph Hancock—Globe



Thousands of logs cut in the jungles and forests are sent down the Belize River, which flows through the city. Along the riverbanks we see huge piles of cut lumber. Perhaps in a few days it will be on its way to the United States or

to England. The only other important product of British Honduras is chicle.

Returning to the airport, we board a plane again and soon are heading southward across the Gulf of Honduras toward the "banana republic."

HONDURAS—THE BANANA REPUBLIC

Next land of call—Honduras!

Swiftly the blue waters of the Gulf of Honduras slip by. Before long we sight mountains that seem to be standing knee-deep in the sea. It is our first glimpse of Honduras, whose area is approximately the same as that of Pennsylvania.

Drawing closer, we discover a narrow coastal plain between the mountains and the sea. Part of this plain is under cultivation. Groves of coconut trees and banana plantations dot the rich land. In between are dense, swampy jungles.

Our plane lands at Puerto Cortés (pwër'tō cōr-tēs'). This city was founded by Hernán Cortés himself. Mr. Rogers, a representative of one of the big American fruit companies, is on hand to

meet us. He is to take us to a near-by plantation where we shall see how the country's most important product is raised.

What is the most important industry of Honduras? In Puerto Cortés we board a funny little car that looks like a bus with railroad wheels. It is a motor truck equipped with flanged wheels so that it can run on a narrow railroad track.

Mr. Rogers calls the driver the *jefe mecánico* (hā'fā mǎ·cǎ'nê·cō), or chief mechanic. Behind the driver's seat there are two or three benches, and behind the benches there is room for freight.

As soon as we pass the last palm shacks of Puerto Cortés, we find ourselves surrounded by dense jungle. On both sides of the track are great, green forest walls.



Courtesy United Fruit Company

Banana harvesting is hard work. A peon cuts the stalk of the plant with a sharp blade set on the end of a long pole. Then, while another peon holds the bunch, he severs it from the stalk with his machete.

We are on our way to a banana plantation a short distance inland.

As we travel on, Mr. Rogers points out how difficult it is to start a banana plantation. First, surveyors and engineers must cut through the jungles and lay out a route for the railroad. Next, hundreds of men with machetes and axes must clear away the trees and bushes. Poisonous snakes make the task very dangerous.

When the land is finally cleared, planting begins. Shallow holes are dug about fifteen feet apart. In each hole is buried a piece of underground stem from an old plant.

Within eight months from the time the

new plant is started, it reaches a height of twenty-five to thirty feet. Then a blossom shoots out from the top of the plant on a long awkward stem. Soon little "fingers" begin to appear on this stem. These "fingers" gradually take shape as bananas. From twelve to fifteen months after planting, the bunch of bananas is ready to harvest.

How are the bananas harvested? Now we leave our little car and walk down long shady lanes between rows of banana plants. Here we see the bananas being harvested. First, one man cuts through the soft stalk of the banana plant with a knife at the end of a long pole. The plant falls, and immediately another man cuts the stem of the heavy bunch of green bananas with his machete. The bunch is caught as gently as possible and carried to waiting freight cars. Every bunch must be handled like a basket of eggs so that the bananas will not be bruised.

We notice that the bananas are still green when they are harvested. They must be left to ripen slowly in a warm, shady place. Bananas that ripen on the plant are not fit to eat.

Presently, we pass long lines of freight cars which are being loaded. Inspectors stand beside each car ready to throw aside any bruised bananas. Near some cars the pile of rejected bananas is as large as the car itself. These discards are returned to the fields to rot and serve as fertilizer, or are fed to the hogs.

Mr. Rogers tells us that the banana harvest really began yesterday when one of the big banana boats from the United States radioed ahead that it would dock at exactly six o'clock this evening. Im-



H. Armstrong Roberts

On many of the larger banana plantations there are narrow-gauge railroads to transport the bunches of bananas to the freight cars. But on other plantations the freshly cut fruit is carried by burro-back. The picture on page 77 shows bananas being carried by burro-back.

mediately, the American manager of the plantation arranged to have his native men at work before sunrise this morning. By midafternoon the banana trains will start for Puerto Cortés. The whole harvest has been timed so that the first carloads will arrive at the loading dock at the moment the steamer is ready to take on its cargo.

We return to Puerto Cortés, and that evening watch the great loading machines as they carry the bananas down into the refrigerated hold of the ship. Some of the large steamers carry as many as 60,000 bunches at each trip. From here the bananas are taken to New Orleans and to other ports of the United States and of the world.

Bananas have been cultivated for many thousands of years. But not until about fifty years ago did they become

popular in the United States. Then a Yankee trader took a few bunches of bananas to Boston with a cargo of bamboo. The people of Boston liked the fruit, and from then on every ship returning from the tropics brought some bananas. Soon there were not enough bananas to meet the demand. American companies then went into the tropical regions of Latin America and began to develop huge plantations on which to raise bananas.

Today the production of bananas is one of the largest fruit industries in the world. The greatest producing region is Central America, and Honduras is the leading country.

The countries of Latin America have found the well-managed banana plantations of immense value. The banana companies provide steady work for thousands

of natives. Tropical diseases have been almost wiped out in the sections where the plantations are located. Scores of towns, schools, hospitals, and theaters have been built. The taxes on bananas help to support the governments of many of these countries. And thus, says our guide, the banana companies were the first "good neighbors" in Latin America.

For what is Tegucigalpa noted? From Puerto Cortés we plan to travel inland to Tegucigalpa (tâ·gōō'sê·gäl'pä), the capital of Honduras. But we learn that Tegucigalpa is the only capital in Central America without a railroad. So we decide to go there by airplane.

We circle the Puerto Cortés airport several times in order to gain altitude before striking out over the mountains hemming in the coast lands.

We cross several ranges of mountains and finally reach a small city nestled in a narrow valley. *Tegucigalpa* is an Indian word meaning "hill of silver." The first Spanish conquerors in this region found the Indians here mining the precious metal, silver. Since then millions of

dollars' worth of gold and silver have been taken from these hills every year.

On landing at the Tegucigalpa airport, we find it is the headquarters of one of the local air lines. While we are waiting for our bus to take us into town, we watch men loading cattle, mining machinery, and even tractors on some of the flying freighters. Why does it pay to carry such heavy freight by air?

We like Tegucigalpa the moment we enter its narrow cobblestone streets. It is a picturesque, colonial Spanish city. The walls of the buildings begin at the edge of the narrow sidewalks. Nearly all the homes are built around patios. But we do not stay here long because we wish to visit the Mayan ruins of Copán (kō·pän').

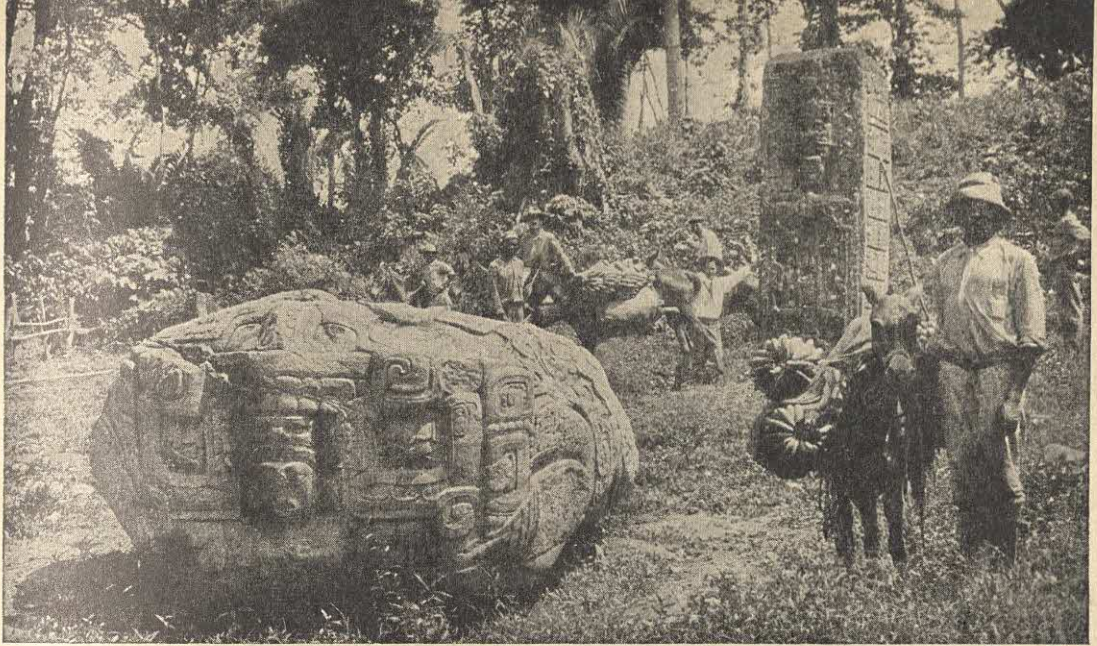
What early civilization once flourished in western Honduras? Our plane takes off on a visit to the most beautiful Mayan ruins in Central America—the ruins of Copán in western Honduras. In what other region did the Maya Indians have a great center of civilization?

At Copán we find several American



Tegucigalpa, meaning "hill of silver," is the capital of Honduras. In hilly towns such as this sidewalks are rare, and the gutter usually runs down the center of the street, as it does in this picture. Notice that the houses, in true Spanish style, are set flush with the street.

Ralph Hancock



Ewing Galloway

Deep in the heart of Central America scientists have unearthed strangely carved rock columns. These are relics of ancient Mayan civilizations. By decoding the writing on these rocks, language experts discovered many things about the Mayas. How do you think these ancient Indians moved and erected such huge blocks of stone? Remember they had neither machinery nor domestic animals to help them.

scientists at work rebuilding ancient pyramids and temples, piecing together the stones like a giant jigsaw puzzle. They tell us that the Mayas built these temples about 1,400 years ago.

We climb finally to the altar on the top of the tallest pyramid. On a point overlooking the surrounding country, we find a seat which once was used by the high priest, or emperor, of the Mayas.

We try to imagine what the city of Copán was like in the days of the Mayas. Some of the huge blocks of stone beneath us must weigh many tons. What were the tools with which they were carved? How did the Mayas transport these blocks to this remote valley? How did they get them piled and fitted together into these great temples?

As we return to the base of the pyramid, one of the young American scientists tells us that these stones were carved with tools made of hard stone, such as

flint or volcanic glass. They were hauled into the valley on log rollers. It must have taken hundreds of workers to move one stone. How they fitted the stones together and piled them up so high is still a mystery. Perhaps the Mayas used some sort of scaffold or ramp.

We are shown pieces of pottery and small metal objects which were made in another Mayan city many miles away. The presence of these objects at Copán shows that there must have been a system of trade between the ancient communities.

From the picture writings carved on the sides of the temples, the scientists have learned that the Mayas had a good knowledge of arithmetic. The writings also show that there were astronomers among them, and that they had an accurate calendar.

What became of the Mayas? Our scientist friend tells us that no one knows



Ralph Hancock

Coconuts, one of the chief products of Honduras, grow in great clusters at the top of palm trees. Oil squeezed from the coconut meat is used in cooking and in making oleomargarine. Charcoal from coconut shells is used in gas masks.

what brought about the downfall of Copán. Perhaps its inhabitants fled the city to escape a plague or some tropical disease. Among the ruins there are signs that show their work came to a stop almost overnight. There are statues that were only half finished. There are ruins of temples that were still in process of construction. One would not find these signs if the people had died off gradually over a long period of years. It is indeed a mystery. Many years may pass before the scientists solve it.

Leaving the ruins of Copán, we head southward. In a short time we shall have to say good-by to Honduras. Certainly we shall never forget its great banana plantations. But in addition to this fruit, the country produces another very important product—coconuts. Over fifteen million coconuts are exported annually. Coffee, tobacco, and common vegetables also are seen growing in the valleys.

EL SALVADOR—TINIEST REPUBLIC OF ALL

Smoothly the shadow of our plane skims along the tree tops. Below us the western mountain range of Honduras stretches north and south. Soon we cross a big river and are in El Salvador. Almost immediately we see a difference in the land below us.

What makes El Salvador an interesting country for us to study? Honduras was rugged and thinly populated, with very few farms between the mountain slopes. Most of El Salvador (ěł sāl'-vā·dōr') is a rolling hilly plateau. Nearly every spot of ground seems to be under cultivation. Tall hedgerows make dark green lines around the lighter green and yellow of corn and rice fields. Farm-

houses are scattered thickly over the countryside. Little checkerboards of red tile roofs reveal the location of numerous villages.

El Salvador is the smallest of all the republics of Central America. It is only about 60 miles wide and 170 miles long and is about one third as large as our state of Indiana. But in this little country live a million and a half people, most of them mestizos. This makes it the most densely populated country on the continent of North America. How many people are there to the square mile?

Just as our plane appears to be running into a tall fence of volcanoes, we swoop down and circle over the roof tops

of San Salvador (sàn sāl'vä·dör'). It is the capital and largest city of this tiny republic, and the next stop on our trip.

As we leave San Salvador's modern airport, we see a sign in Spanish. One of our fellow passengers from the plane translates it for us. It reads: "San Salvador, capital of the Republic of El Salvador. 100,000 inhabitants. Principal agricultural products: coffee, sugar, tobacco, cacao, and balsam. Various industries. Various places of recreation."

"What is *balsam*?" one of us asks.

Our acquaintance explains that it is the sap of a tree growing in the jungles of El Salvador. It is also known as Peruvian balsam. This sap forms the base for a great many medicines. It was used by the Indians long before the coming of the white man.

As we enter the capital, we notice a number of oxcarts loaded with corn, hardwood logs, and tobacco headed for the markets. People are everywhere. Endless lines of women with huge baskets balanced on their heads mingle with the oxcarts, trucks, buses, automobiles, and bicycles.

Small stands selling iced pineapple, lemon, orange, and other fruit drinks are

on nearly every corner. They do a brisk business, for although we are on a plateau, it is not so high here as in Guatemala City or Tegucigalpa, and the climate is warm and tropical.

There have been so many earthquakes in the city of San Salvador that the people have learned to build a special type of quakeproof house. Tile roofs and adobe walls crumble easily during earthquakes. The new houses, therefore, are built of concrete and steel and have corrugated iron roofs.

We learn that the government of El Salvador is very progressive. It has built fine paved highways, modern schools, and beautiful parks in every village. It is also responsible for much of the local interest in sports. We see many swimming pools, playgrounds, "futbol" fields, and tennis courts built by the government. Each year the Latin-American countries hold a small Olympic meet, and El Salvador has produced more than its share of champions.

The next morning we bid "*adiós*," to the tiny republic of El Salvador and begin our flight southeastward to Nicaragua (nĭk'ā·rā'gwä)—the country that is "in the middle."

El Salvador is a densely populated country, and its towns are crowded. This street scene in the capital of El Salvador is typical. Most of the women seem to be carrying home foodstuffs from the market. When an oxcart comes along they all stand to one side so that it may pass; then they fill the street again.

Ralph Hancock





Ralph Hancock

Not far from Nicaragua's capital, old Momotombo smolders in the bright sunlight. Our plane carries us close to the ancient cone, and we can see quite clearly where the lava has boiled out of the crater, spilling down the mountainside. Over the shoulder of the volcano we see part of Nicaragua.

NICARAGUA—THE MIDDLE COUNTRY

In a little more than one hour we fly from the capital of the smallest country in Central America to the border of the largest country — Nicaragua. When we find Nicaragua on the map, we see that it is in the very middle of Central America. We notice that it has two large lakes.

Most of the people of Nicaragua live in the western part of the country. Here are the largest cities and the leading port. The eastern half of Nicaragua differs greatly from the western half. It is a vast expanse of tropical jungle with an abundant rainfall. Tall forests of mahogany, cedar, ironwood, and dyewood trees, and many strange plants cover the region.

Our ship is flying southeast. Below us

is a lowland country, to our right the Pacific Ocean, and to our left a series of ancient volcanoes. They are part of the mountain chain that we have followed through Central America. We soon see Lake Managua (mä·nä'gwä). We land at Managua on its southern shore. This is the country's capital and largest city.

As we step from our plane, a blast of hot air strikes us. It is as though we were walking into an oven. Managua, we learn, has a very hot climate because of its low altitude. Any breeze that blows off the lake merely stirs the air without lowering the temperature. There is but little rainfall in this region west of the mountains.

We find comfortable rooms in Managua and before long are enjoying lunch in the shady patio of our hotel. After siesta, we start out to see Managua. The traffic is much like that of the other Latin-American towns we have visited—a jumble of modern automobiles and ancient oxcarts. But we notice also several horse-drawn carriages, some of which are painted in bright colors.

These carriages serve as taxis. Under the driver's seat is a little gong. When the carriage approaches a corner or passes another vehicle, the driver rings the gong furiously, in perfect time to the clop, clop of the horses' hoofs!

What are the chief products of Nicaragua? In Managua's market we see piles of coffee, cacao, raw sugar, beans, corn, and rice. All these products are grown in either the central highlands or western lake lands of Nicaragua. Coffee is the principal crop. Cattle also are raised in the high plains, and large herds are driven each year to the markets of other Central American countries.

Along both of the coastal plains there are great banana plantations. Coconuts,

plantains, oranges, and pineapples are also raised.

In the northeast lies an important gold-mining region, and gold is a leading product of the country. We are much surprised to learn that Nicaragua's mineral wealth exceeds that of all the other Central American republics. But because transportation through the thick jungles is difficult, little mining is carried on. Besides, good workers are scarce. The people in this region are mostly Indians, who are content to "take life easy."

How did Nicaragua once play a part in the history of our own country? But now it is time to leave Managua, and so we board a plane and head southeast. Shortly we sight a speck of silver on the far horizon. Gradually it grows larger and larger, until it expands into a great lake. It is Lake Nicaragua, 110 miles long—the largest lake in Central America. Our map shows that a river connects Lake Nicaragua with the Caribbean Sea. Only a narrow strip of land separates the lake from the Pacific Ocean.

This land-and-water route across Nicaragua once played a brief but important

Among the exports of Central America, forest products are very important. But it is often costly and difficult to transport the mahogany and other valuable logs from the forests to the sawmills. Many times it is necessary to cut several miles of path through the underbrush before the logs can be dragged to the water's edge.

H. Armstrong Roberts



part in the history of the United States. That was back in the days of the California "gold rush." People from the eastern part of the United States headed westward by the thousands. Many made the long journey across the continent in prairie schooners. Others boarded ships in eastern ports and sailed 15,000 miles around South America to California.

Both these ways were long and difficult. Men eagerly studied maps, seeking a shorter, easier route. The eyes of one rich man, Commodore Cornelius Vanderbilt of New York, fell on Nicaragua—and then he went to work.

Not long afterwards Commodore Vanderbilt's steamers were carrying eager crowds from New York and New Orleans to Nicaragua's east coast. From there the gold-seekers traveled by rivers

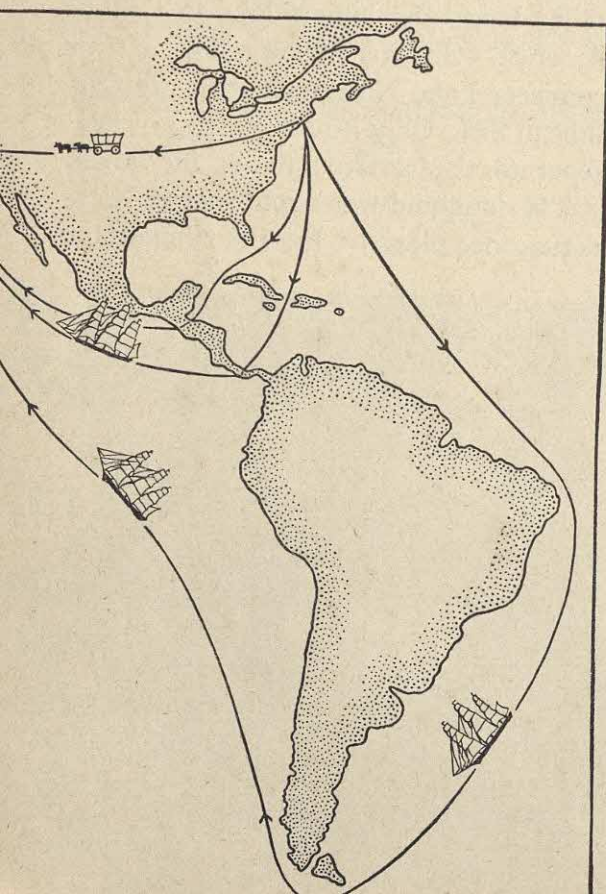
and lake to a point only twelve miles from the Pacific coast. Twenty-five coaches, painted in the Nicaraguan colors of blue and white and drawn by fine horses, sped the passengers over these twelve miles of smooth road to the coast. There the gold-seekers boarded ocean steamers and sailed on to California.

Many weeks of traveling were saved by this route. It attracted about 2,000 people a month. Each person paid \$300 for the entire journey. The returning ships were usually laden with gold.

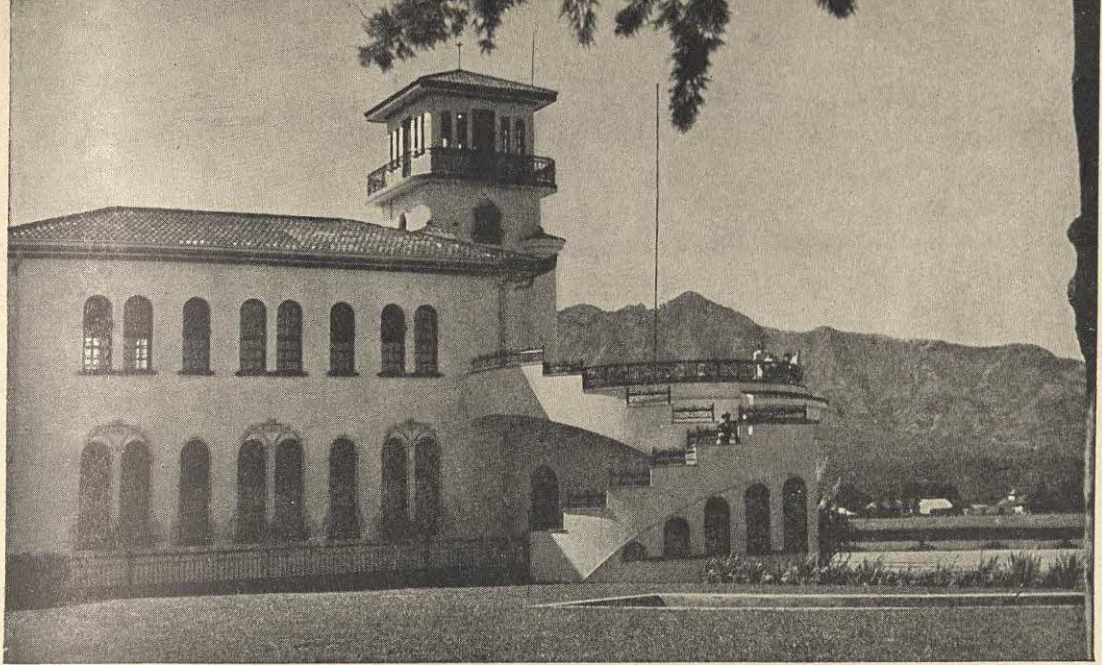
Years later the United States was looking for a place to build a canal connecting the Atlantic and Pacific Oceans. Surveyors went over Commodore Vanderbilt's old route across Nicaragua, but the choice fell on the Isthmus of Panama.

After the Panama Canal was finished, our government decided that a second canal might some day be necessary. So in 1916 the United States paid the government of Nicaragua \$3,000,000 for the right to build a canal across this country at some future date. Our government also may build naval bases here.

Adiós, Nicaragua! We are now ready to leave the "land in the middle." As our plane slips along the shore of Lake Nicaragua, it carries us closer and closer to the country's southern border. Perhaps some day we shall return and find this a greatly changed country. For with hard work and good transportation, Nicaragua can uncover her wealth of minerals and timber to become a prosperous land.



The shortest route in miles to California's gold fields was straight across the United States, but in 1850 this route took the longest time. The cheapest and best routes went through Nicaragua or Panama. Even sailing around Cape Horn was easier than crossing the United States.



Ralph Hancock

There are not many airports in the United States that handle as many passengers as the one at San José, Costa Rica. Some of the passengers are making through trips between the United States and South America, while others are traveling on local planes between the banana plantations and the cities. Often an entire plane is filled with barefooted natives who find air travel cheaper than travel by land.

COSTA RICA—RICH COAST

Our first view of Costa Rica (kō'stä rē'kä), as we approach by air from Nicaragua, is of one large expanse of jungle. Occasionally we glimpse the small clearing and rude grass hut of a primitive Indian family. These Indians, cut off from civilization, are still living as did their ancestors of 2,000 years ago. They have no tools or weapons other than the crude stone implements they make themselves. They hunt with bows and arrows. They cultivate their small patches of corn and beans with stone hoes and crooked sticks.

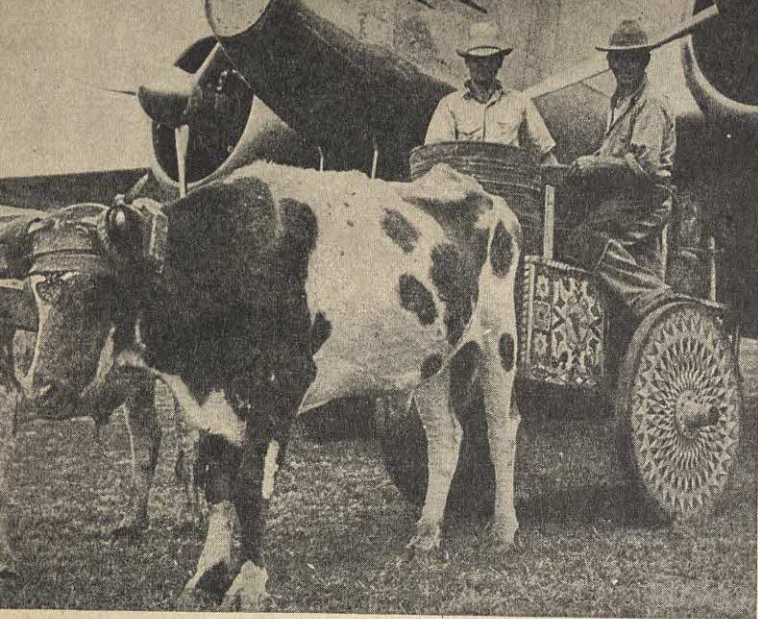
In what ways is Costa Rica a modern progressive country? Then we cross a high volcanic ridge of brown cones, and ahead of us lies the broad central plateau valley of Costa Rica. All the way across the valley our plane takes us over a jigsaw puzzle of farms and coffee plantations. Every acre seems to be under

cultivation. Dark green hedges mark off the fields of corn, rice, wheat, and beans, and the truck gardens of vegetables and fruits. The villages over which we skim appear clean and well laid out. Good roads wind over the rolling hills and connect the villages.

In a short time we land at San José (sän hō·sä'), the lovely capital of Costa Rica. The modern airport building through which we pass is one of the most beautiful we have seen. Courteous uniformed officials glance at our passports and say, "*Bienvenido a Costa Rica* (byän'vâ·nē'thō ä kō'stä rē'kä)," which means, "Welcome to Costa Rica." Everyone smiles and seems friendly.

While our baggage is being examined by a polite customs official, a young man approaches.

"May I assist you?" he says in per-



In no place in all the world are the native carts quite like those of Costa Rica. They are all gaily painted, and many bear a family insignia in bright colors. The wheels of some are made of single slices of a great log. The cart in this picture is delivering freight to a transport plane.

Ralph Hancock

fect English. "I am Señor Martín (Mär·tēn'). I represent the Tourist Board of Costa Rica."

We tell him we shall be grateful for his help. Señor Martín claps his hands, and immediately a porter comes to take charge of our baggage. Then as we walk about the airport, Señor Martín answers some of the questions we have been longing to ask.

Besides the big international plane which brought us to Costa Rica, there is a busy domestic service of freight and passenger planes. These call at remote villages spread out in every direction from the capital. A stream of peons, company officials, and freight flows to and fro between San José and the Pacific Coast, where an American-owned company is developing banana plantations thousands of acres in size. Some of the peons travel barefooted. Many carry long machetes. Well-dressed banana company officials wear tropical helmets.

From the airport into the city we ride along a wide flower-bordered avenue. But the most colorful things we pass are

the oxcarts. Nowhere in the world are they painted with such bright colors or in such interesting designs as in Costa Rica. Each one is different. Some of the designs have been handed down from father to son for generations.

San José is very much like an American city. For the first time since we left the United States, we find that most of the homes are like American homes. They have their lawns and gardens around the houses instead of inside the patios.

We are shown the National Theater, the fine banks, the busy commercial streets, and the various government buildings. But what impresses us most are the many schools. Señor Martín says there are more school teachers than soldiers in Costa Rica.

Why is Costa Rica a progressive country? Most of the early settlers in Costa Rica were Spanish farmers. They were interested in raising crops and not in hunting gold. The Indians who lived here were pushed into the interior of the country, and later placed on reservations.

This reminds us of the way the Indians were treated in our own country.

There was very little intermarriage between these Spanish farmers and the Indians. As a result most of the inhabitants today are of pure white stock. There are only a few mestizos and Indians.

Today most of the people of Costa Rica are still hard-working, ambitious farmers. They are interested in educating their children, in building good roads, in producing fine crops. They are working hard to make their country a progressive and democratic republic.

Why is Costa Rican coffee in demand throughout the world? When Señor Martín says that fine coffee is the most important product of his country we wish to know why.

"May we visit a coffee farm?" we ask him.

"*Con mucho gusto* (kōn mōō'chō gōō'stō)," he replies, then translates the words for us. "That means, 'with great pleasure.'" Then he adds, "But do not call them coffee farms. Call them coffee *fincas* (fēn'käs)."

From San José we drive into the country and begin at once to see the great coffee *fincas*. On both sides of the highway stretch the rows of coffee trees. They are only about ten feet tall. Between the rows of coffee there are other trees, which grow tall and spread out over the tops of the coffee trees. "Why do the planters not chop down the tall trees that cut off the sunlight?" we ask.

Señor Martín explains that in the hot coastal regions the coffee trees grow better in shade. He points out some parts of the *finca* where banana plants are used for shade.



Photos by Ralph Hancock

Mild Costa Rican coffee brings a high price. The whole family helps to pick it and prepare it for market. After the skins have been removed from the coffee berries, the beans are spread out on a large sunny patio and stirred until they are thoroughly dry.



"Then do they get two crops off the same ground?" we wish to know.

"Yes, although it is very hard on the soil," he says. "But we Costa Ricans are fortunate. Old Mother Nature spreads a coating of fertilizer over the ground every now and then."

"Fertilizer? How is that?" we ask. Señor Martín points up to the black cone of a volcano towering in the distance.

"That volcano gives us our fertilizer," he says. "The ashes which it throws off from time to time spread a thin layer of much-needed chemicals over the land. That is why our soil remains so rich."

We travel on and arrive at last in the very midst of the coffee pickers at their work. There are boys and girls as well as grown-ups. They have large baskets fastened to their hips with belts. This leaves both hands free to pick the bright red berries. How their hands fly! They get several centavos for every basket they pick.

The coffee trees look much like Christmas trees. The leaves are dark green and glossy, like holly leaves. There are bright green berries and bright red berries on the same tree.

We pluck some of the berries, which grow in bunches along the slender stems, and examine them closely. They look much like cranberries. But when we squeeze them, we find the red skin encloses two yellow coffee beans. Each bean is like half of a ball. The two halves together fill the red berry.

A large truck passes by, and the baskets are all emptied into it. Let's follow the truck.

Down a lane between the coffee trees it leads us finally to a big red building.

The truck load of bright red berries is emptied into a great round tank. A big wooden wheel in the tank mashes the red skins off the coffee berries.

From this tank the beans now go through another tank where a stream of water is constantly flowing. The water removes most of the skins not already taken off by the wooden wheel. A long trough now carries the coffee beans from the building out to a broad concrete yard.

"This is called the drying patio," explains Señor Martín. "The wet coffee grains are spread out in the sun to dry."

Several men are working in the patio, spreading the golden yellow beans. Back and forth they stir them so the sun can reach each grain and dry it thoroughly.

After the coffee beans are dry, their husklike skins are removed. Then the beans are sorted, sacked, and shipped to all parts of the world. Most of Costa Rica's coffee is used to blend with other coffees to improve their flavor.

"Perhaps you can now see," says Señor Martín, "why our coffee is so popular. Our rich well-fertilized soil and fine climate give the coffee a distinctive flavor much appreciated by lovers of good coffee. And the farmers of Costa Rica pick and prepare the coffee with such care that only the very finest beans are sent to market."

Climbing a volcano. Later, after we leave the coffee *finca*, we decide it would be fun to climb a volcano. For two hours we follow a winding trail that is so steep we have to stop frequently to rest. Gradually, we leave the bright green trees and bushes and come into an area which is gray and dusty from recent eruptions.

WHAT IS A VOLCANO?

Hundreds of years ago when a volcano erupted, the people thought that the gods of the underworld were angry. The Greeks named the "fire-breathing mountains" volcanoes after the chief god of their underworld—Vulcan. Today, scholars are able to tell quite accurately what happens inside an active volcano by studying what happens on the outside.

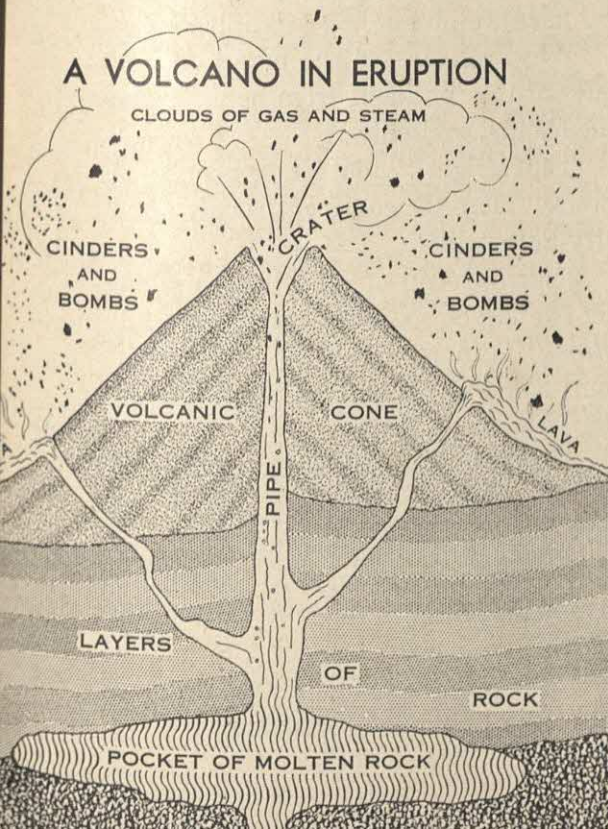
Thousands of years ago, the layers of rock which make up the crust of the earth were folded and tilted in certain places to form mountains. While this mountain making was going on, huge cracks or fissures opened up in the rock layers. Such cracking still goes on. When this happens, there is an earthquake.

Sometimes the crack reaches down to a pocket of molten rock between layers of solid rock. The molten rock, which is very hot, rises through the crack—the pipe of the volcano—to the earth's surface and is blown high into the air. The rock hardens and falls back to earth as volcanic ash, as cinders, or as large pieces which are called 'bombs. These pile up in the shape of a cone—sometimes several thousand feet high—around the opening in the earth.

After the first explosions, more of the molten rock rises up through the fissure and breaks through the piled-up ashes around the mouth of the volcano. This liquid rock is lava. It flows out over the land around the volcano, pushing out slowly and covering trees, fields, and buildings. The lava, ashes, cinders, and gases which come from the volcano destroy almost everything within many miles.



Ewing Galloway



The picture above is of Paracutin, the volcano that grew in a cornfield in Mexico.

The cross section at the left illustrates what scientists think happens inside an erupting volcano.

The map at the right shows the "Belt of Fire," a chain of volcanoes which follows the mountain ranges in the western parts of both Americas.



There is a strong odor of sulphur in the air, and we hold handkerchiefs over our faces to protect us from the dangerous fumes.

Up, up, we climb until our feet feel like weights of lead. Presently, we find ourselves on the rim of the crater. A little below us and nearly half a mile away in the center of the crater is a small cone, from which a smokelike column of gas billows toward the sky.

Shall we venture on? "Certainly," says Señor Martín. We climb down into the crater and approach to within a very short distance of the "smoking" cone. Suddenly there is a low rumble like distant thunder. The earth trembles beneath our feet, and we have a great desire to turn and run.

PANAMA — CROSSROADS OF THE WORLD

As we leave Costa Rica, we glance at the sun and notice that we are traveling almost due east. "Can this be the way to Panama?" we exclaim. Our fellow passengers laugh and tell us to study our map. What a surprise we get! Panama actually is east of Costa Rica, and part of it is even farther east than Florida.

As our plane crosses into Panama, we see many interesting things on the ground below us. Along the coast are the bluish fields of the banana plantations. Farther inland we see fields of yellow-green sugar cane and corn, and low forests of dark green cacao bushes. On the foothills that stretch to the mountains of the interior, cattle are grazing.

Our plane soars higher and higher, and the land grows rougher and rougher. Off to our right are the blue waters of the Pacific. Then suddenly to our left there

With a deafening roar the column increases to giant size. Mighty clouds of steam, white-hot gases, and volcanic ash puff out and drift away over the valley.

The eruption continues for several minutes. We are fortunately protected by the wind. Nevertheless, we are relieved when the old volcano quiets down again.

On our return to San José and the airport, Señor Martín tells us that coffee is not the only product of Costa Rica. Bananas, cacao, and sugar are also produced here. He adds that Costa Rica should really be called Tierra (tyä'rrä) Rica, or "Rich Land," instead of just "Rich Coast." But Columbus and the other early explorers saw only the coast, and so named the land Costa Rica.

is a reflection of light. Dimly through the haze we glimpse the Caribbean Sea.

"Why, we can see the ocean on both sides of the continent from here!" someone shouts, excitedly.

"That's right!" another passenger answers. "Here the continent is only about fifty miles wide!"

A narrow strip of land like this joining two larger bodies of land is called an *isthmus* (is'müs). And this strip, which joins North and South America, is called the Isthmus of Panama.

Soon there are other reflections ahead, and the passengers explain that we are approaching the famous Panama Canal, which many people regard as the greatest man-made object in the New World. We fly over the canal and return to land at an airport near Panama City—the capital of the Republic of Panama.



H. Armstrong Roberts

Large cattle ranches are scattered throughout most of the highland regions of Central America. Some of the cattle raised on these ranches look different from those we raise in the United States. This is because they are a crossbreed between our type of cattle and a variety brought from India. The latter are not subject to the diseases carried by cattle ticks and other insects that infest these regions.

Why is Panama sometimes called "the crossroad of the world"? We stop for awhile in the shade of a sidewalk café and watch the people pass by. We see Japanese, Chinese, and other slant-eyed Orientals from the Far East. There are also Negroes from the West Indies, Hindus from India, and Frenchmen, Italians, and Turks.

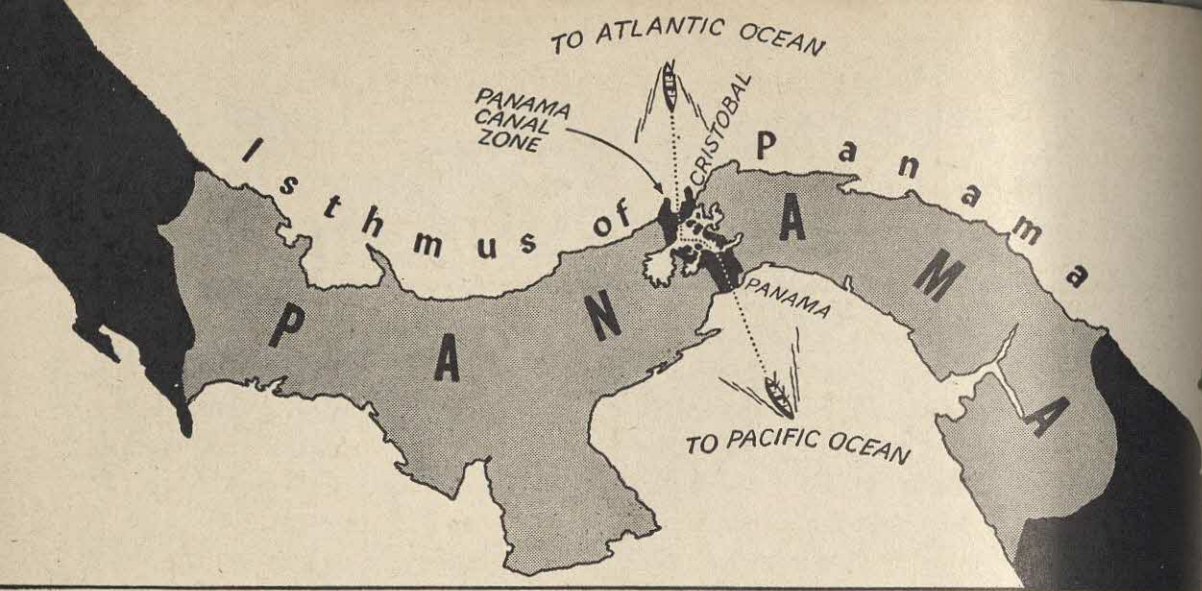
No longer do we hear only Spanish. A dozen different languages are spoken in Panama City. Our waiter speaks to us in English. Later when he serves another guest, we hear him speak German. Being a Panamanian, he undoubtedly speaks Spanish, too.

When our waiter is not busy, we ask him a few questions about his country. Panama, he answers, has always been a

great crossroad. Indian tribes probably traveled back and forth between North and South America over this "bridge of land." Later, after Balboa cut and chopped his way across this isthmus, it became a crossroad for traffic moving east and west.

At first, most of this traffic was in gold and silver from the mines of western South America and Central America. These treasures were first brought by water to Panama City, and then transferred to pack mules and carried across the isthmus to seaports on the Atlantic side.

When pirates and buccaneers learned of these shipments, the isthmus became the scene of many bloody raids. At one time a bold English pirate named Cap-



Ships leaving the Panama Canal sail north to reach the Atlantic Ocean and south to reach the Pacific Ocean. Compare this map with one showing the continents.

tain Morgan even sacked and burned Panama City.

Years later the isthmus was used as a crossing point for many people from our own country who traveled to California during the "gold rush." This travel encouraged Yankee railroad builders to construct a railroad across the isthmus.

Why was a canal needed across the Isthmus of Panama? The railroad across the isthmus carried thousands of passengers, but not much freight. It was too expensive to unload cargoes from ships, load it on freight cars, carry it across the isthmus, unload it from the cars, and then load it into another ship. That was even more expensive than carrying the cargo around Cape Horn.

So men determined to cut a canal through the isthmus. The distance from New York to San Francisco via Cape Horn is 15,200 miles. Through a canal at the isthmus the distance would be only 6,100 miles. From London to San Francisco around South America is 15,900 miles. A canal would save 6,600 miles.

Besides shortening the route of ocean liners and freighters, the Panama Canal would also be important to the defense of the United States. Battleships of our fleet could use it to go back and forth in protecting the east and west coasts.

Why did the first attempt to build a canal end in failure? The first attempt to build a canal was made by a French company. But the fevers and dangers of the tropical jungles often wiped out an entire construction camp almost overnight. After the investment of millions of dollars and the loss of thousands of lives, the project was abandoned.

What three Americans made the building of the canal possible? Three Americans, one a President, another an Army Surgeon, and the third an Army Engineer, succeeded in building the canal after the French had failed.

The President was Theodore Roosevelt. He was determined to build a canal. He first tried to get permission to build it from Colombia, to which country the isthmus then belonged. But Colombia

refused. The people living on the isthmus were angry, and soon they revolted from Colombia and set up the independent Republic of Panama.

President Roosevelt sent warships to prevent the government of Colombia from putting down the revolt. Then the United States *recognized* the new government of Panama and in 1904 entered into an agreement with it to build a canal.

For \$10,000,000, the Republic of Panama gave our government a perpetual lease on a strip of land about forty-five miles long and ten miles wide. It is known as the *Panama Canal Zone*. The United States pays \$430,000 rent for this land every year.

But permission to build the canal was not enough. Someone had to build it, and long before our workers could actually be sent here, the Canal Zone had to be changed from a dreaded, fever-ridden jungle to a sanitary, healthful country where men could live and work.

Colonel William Gorgas was chosen to lead the fight against the tropical diseases. With the help of his medical officers, Colonel Gorgas stamped out the deadly fevers and turned the Canal Zone

into one of the most healthful places in the world.

Then came another fight, the fight against the mountains, the treacherous landslides, and the jungles through which the canal had to be cut. But again the fight was won, this time under the leadership of the great engineer Colonel George Goethals. In ten years Colonel Goethals completed the canal and united the two greatest oceans in the world.

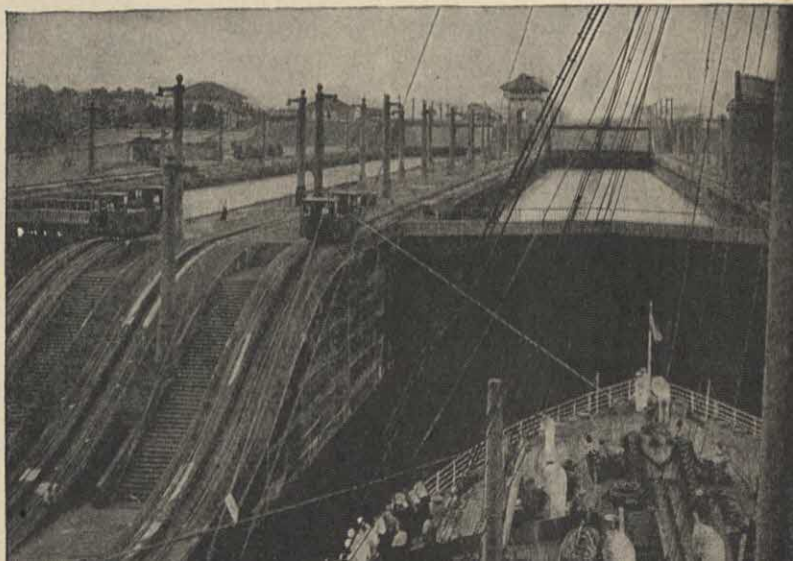
The Panama Canal cost a little more than \$395,000,000. This greatest of man-made waterways is used by about 5,000 ships every year. They pay toll according to the number of tons of cargo they carry. Some of the larger ships must pay from \$15,000 to \$20,000.

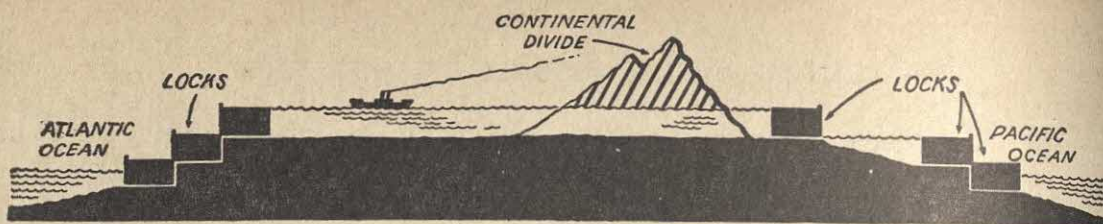
Because of its great value, our government keeps the canal in good condition and well-guarded against enemies at all times. The canal is protected by tremendous long-range cannon hidden in the forests. The army has important air bases here, and the navy patrols the seas.

Most of the 52,000 people living in the Panama Canal Zone do work connected in some way with the canal or with the government-owned railroad running

In this picture we see how ships are raised from one level to another in the Panama Canal locks. The gates ahead of the ship will soon open, and the electric locomotive on the top of the wall will tow it forward into the next lock. More water will then be admitted to the second lock. Finally the gates will be opened at the far end, letting the ship pass on into still another lock—three in all.

Underwood—Stratton





This cross section of the Panama Canal shows the locks which lift the boats from the oceans up to the level of Gatun Lake. It also shows the cut through the Continental Divide.

across the isthmus. They live in homes built, furnished, and maintained by the United States government. The libraries, hospitals, clubs, and schools here are also government-operated. In fact, almost everything in the Canal Zone is run by the government of the United States. The schools are equal to the best in the United States.

A trip through the canal. A short time later we decide to make a trip to the Caribbean side of the canal. So we board a boat at Balboa, a short distance away from Panama City. Government headquarters for the Canal Zone are near by.

Ships flying the flags of several nations lie about us. They are all waiting their turn to enter the canal. A government pilot boards our boat and we are soon on our way. We have not advanced far on our trip through the canal when the enormous concrete walls of the first lock loom ahead. Our ship's engines stop, and powerful electric locomotives traveling on tracks alongside the canal, pull us into the lock.

Gradually our boat is raised as more and more water is admitted into the closed lock. When the water inside the lock reaches the level of the water in the second stretch of canal, gates open and our ship continues on its way.

In a few minutes we are towed into a second lock. Again our boat is raised. A few miles farther on, a third lock lifts us to the highest point in the Panama Canal—eighty-five feet above sea level.

Engines are started again, and we pass through a deeply excavated cut in the mountains. On either side of the canal are banks hundreds of feet high. This eight-mile gash through the backbone of the mountain range is known as *Gaillard (gāl'ērd) Cut*.

Entering Gatun (gä·tōn') Lake, we steam slowly along its twenty-four mile channel. Then we enter another set of locks. This time we go by stages *down* the water stairway. Emerging from the last lock, our ship is again at sea level.

Here is located the city of Cristobal (krīs·tō'bül) and its twin, Colón (kō·lōn'), which are the Spanish words for Christopher Columbus. Cristobal is in the Canal Zone, but Colón across the street is a city of the Republic of Panama.

We find that Colón has many quaint bazaars and shops stocked with goods from all over the world. Here and there is a food store, and we learn that Panama's products are about the same as Costa Rica's. However Panama does not produce any crop in great quantities.

We are told that this is one of the wettest regions in the New World. Its rainy season lasts eight months out of every year. South of the Canal Zone much of the country is wild, unexplored jungle. In fact, almost one half of the country is wholly uninhabited.

Our visit to the Central Americas is now at an end. We must say "*adiós*" to North America for the present. Onward to the continent of the south!

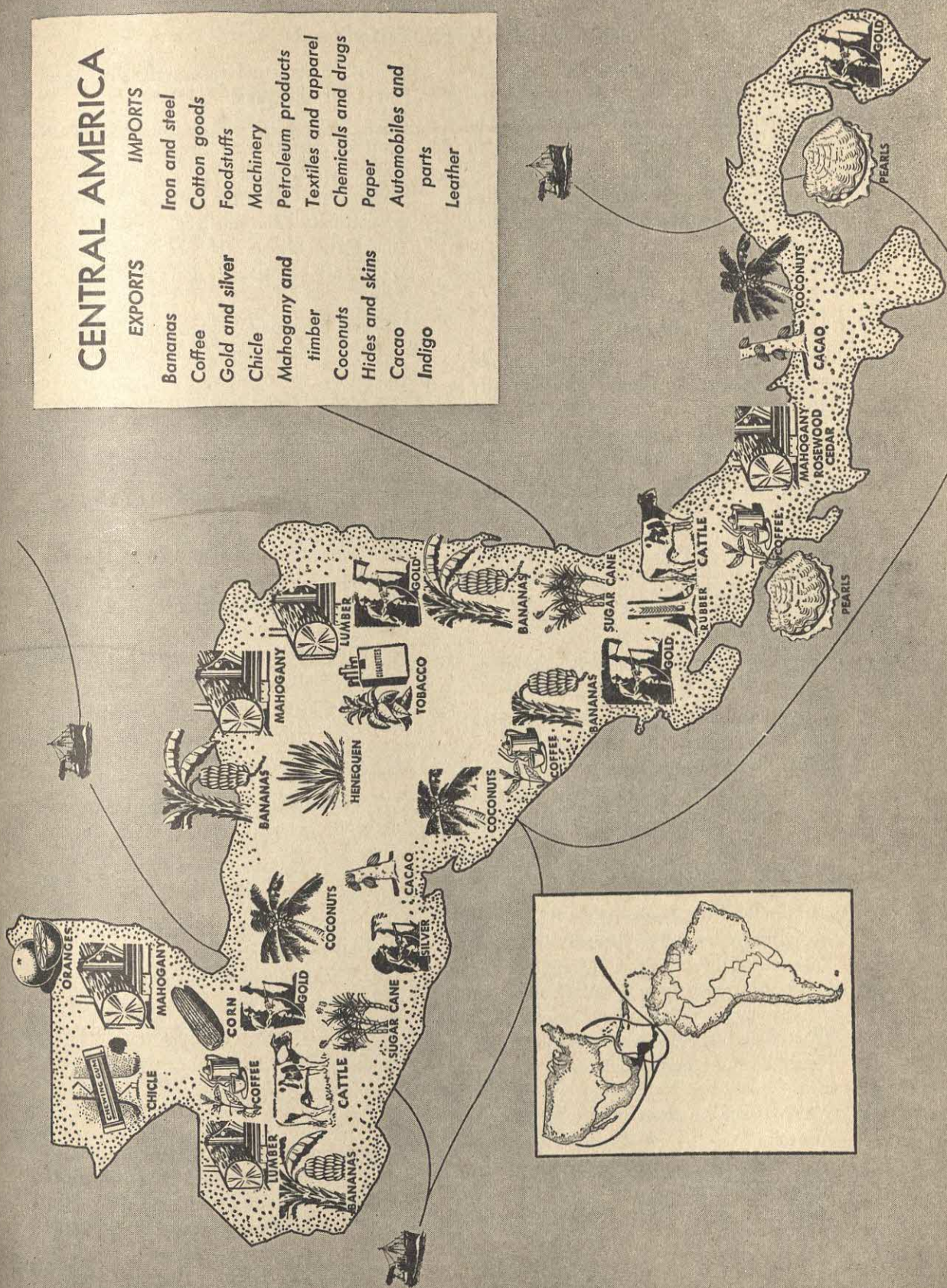
CENTRAL AMERICA

EXPORTS

Bananas
Coffee
Gold and silver
Chicle
Mahogany and
timber
Coconuts
Hides and skins
Cacao
Indigo

IMPORTS

Iron and steel
Cotton goods
Foodstuffs
Machinery
Petroleum products
Textiles and apparel
Chemicals and drugs
Paper
Automobiles and
parts
Leather



YOUR ACTIVITY PROGRAM

No doubt you have found this unit especially interesting because of its variety. Each of the seven Central American countries has certain distinctive features which the text has tried to bring out. The following program of activity will help you remember the outstanding features of each of these countries and how they are alike yet different.

Solving the Problems

A. *Recognizing the Problems.*

1. You will find there are twenty-five problems in this unit. Do you find any similarity between the problems raised about the various countries? Be ready to explain in what way the problems are similar.
2. Write the problems of this unit in your notebook.
3. Put a check mark in front of the ten problems that you consider most interesting. Be able to tell why you think so.

B. *Gaining the Understandings.*

1. Be ready to answer the following questions:

How does the geography of a country affect the density of its population?

What historical facts make the present situation in Costa Rica quite different from the situation in other Central American countries?

Why is Panama "the crossroads of the world"?

Why would it be better for us to refer to our country as "The United States of America" rather than just "America"?

What was the first capital of Guatemala?

What country produces the most chicle?

What type of people comprise the largest percentage of the population in Guatemala?

Which is the smallest country in Central America?

Upon what basis did Great Britain claim British Honduras?

How much did we pay Panama for our

right to a perpetual lease on the strip where we built the canal?

If a country depends solely upon one or two industries, what are the drawbacks, or the advantages?

What country has the better advantage or opportunity—the one that produces raw materials only, or the one that produces both raw materials and manufactured goods?

2. Below are some statements. Some of them are true and some false. On a piece of paper write the numbers 1 to 15. Draw a circle around each number that corresponds with a TRUE statement and put X after each number that corresponds with a FALSE statement.

(1) The capital of British Honduras is Tegucigalpa.

(2) The eastern coast of Central America is mostly a hot, damp jungle.

(3) Guatemala has never had an earthquake.

(4) Quezaltenango is the center of the Indian population of Guatemala.

(5) Guatemala City is a very clean city.

(6) Antigua grew to be the greatest city in Central America when it was under French rule.

(7) The airplane is a great help in traveling and for carrying freight in Central America.

(8) British Honduras is a republic like our own.

(9) Tegucigalpa is the only capital in Central America without a railroad.

(10) The Aztecs lived in the western part of Honduras.

(11) El Salvador is the largest country in Central America.

(12) Costa Rica is a progressive country.

(13) Costa Rican coffee is inferior to most other coffee.

(14) Nicaragua is all flat, level country.

(15) The Panama Canal Zone is about forty-five miles long and ten miles wide.

3. Finish the following statements as com-

pletely as you can and write them all in your notebook.

(1) The principal features of Central American geography are

(2) Three important facts about the history of Central America are

(3) The population of Guatemala consists mainly of

(4) Guatemala City is a good place to live because

(5) The first capital of Guatemala was

(6) The principal industry of northern Guatemala is

(7) In Guatemala the airplane is

(8) The people of Guatemala earn their living mainly by

(9) British Honduras is unlike other Central American countries because

(10) The chief industry of British Honduras is

(11) The most important industry of Honduras is

(12) The important facts about harvesting bananas are

(13) Tegucigalpa is noted for

(14) Western Honduras was once a center of

(15) Scientists have been unable to discover what became of

(16) El Salvador is an interesting country to study because

(17) The chief products of Nicaragua are

(18) Nicaragua played a part in the history of our own country when

(19) Some ways in which Costa Rica is a modern progressive country are

(20) Costa Rica is a progressive country mainly because

(21) Costa Rican coffee is in demand throughout the world because

(22) Panama is sometimes called "the crossroads of the world" because

(23) The Panama Canal was needed because

(24) The first attempt to build the canal ended in failure because

(25) The three Americans who made the building of the canal possible were

4. In finishing these twenty-five statements, you have written the "understandings" of this unit. Now go through this list of "understandings" and pick out the ten which answer the problems you checked earlier as the ten most interesting to you. Prepare an outline of these ten "understandings."

In preceding units it was explained that the subpoints for your outline are to be found in the text. You may have to get the ideas for the subpoints by combining several sentences from the text into a few general statements expressed in your own words.

Let us take an example of this. On page 74 the "problem" raised is, **How are the bananas harvested?** The text which follows provides the information with which to solve this "problem" and thus gain the desired "understanding." There are so many facts presented that you could not possibly include all of them in an outline. You must therefore pick out those facts which seem most important and boil them down into a few general statements. These general statements would then provide subpoints to go under this "understanding." You may find it desirable to include lesser statements as subpoints under the general statements.

Enriching the Understandings

The following activities are optional. It is not to be expected that the class will find time to carry out all of them. Choose among them those which seem to offer the most interesting possibilities.

1. Read as many books about Central America as you have time for. A list of suggested readings appears in the bibliography at the front of this book.

2. Plan a trip to Central America. Let each member of the class choose the country he wishes to visit. Then divide into committees according to the country to be visited. Each committee should then prepare a plan covering the following points and later present its plan to the entire class.

a. What clothing should be taken along.

b. What route to follow throughout the entire journey.

- c. The points of interest to be visited.
 - d. Special features of each place visited.
 - e. Historical facts about the country that help one understand present conditions.
 - f. The kinds of objects one might buy for souvenirs.
3. Descriptive pamphlets about the Central American countries can sometimes be obtained from United States steamship companies and air lines operating in those regions.
 4. Make a list of foods that you might eat if you were dining in a Central American restaurant, tea room, or home.
 5. Invite another class in for refreshments consisting of bananas, coconut meat, and cocoa. Tell your guests what you have learned about these products and where they are grown.
 6. Obtain slides and films of the Panama Canal, the banana industry, coffee growing, and other Central American subjects. Show them before the class.
 7. Arrange a display of Central American flags. If you do not have a place from which to borrow such flags, you might make drawings in color of each of the flags and exhibit them. Show the proper way to hang these flags along with your own flag.
 8. Make a collection of Central American coins.
 9. Continue with the stamp collection started earlier.
 10. Add as many Central American products as possible to your collection.
 11. Make a scrapbook of clippings of articles and pictures concerning Central American countries.

12. Get records of Latin-American music and play them.

13. The following words may have been new to you when you first met them in the text. Be ready to tell in class what they mean.

chiclero	balsam
machete	finca
plague	isthmus
volcano	fertilizer
international	laboratories

Applying Your Knowledge

Write a short paper telling why the United States and the nations of Central America should be good neighbors. Include a paragraph on each of these headings:

1. products which the United States obtains from Central America.
2. products which Central America obtains from the United States.
3. investment of United States money to develop resources of Central America.
4. co-operation in time of war.
5. exchange of ideas.

Forming Opinions

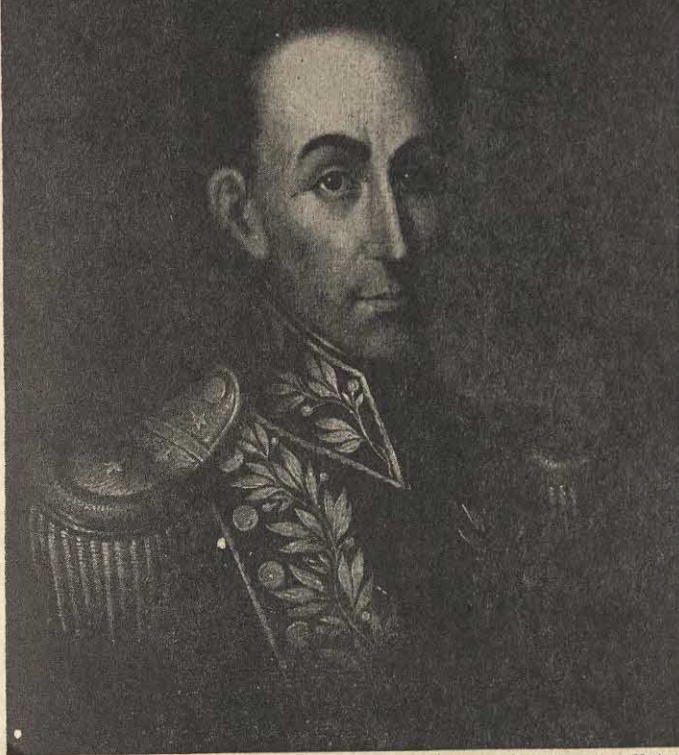
You can never form worth-while opinions of your own without first considering both sides of the question. Study the following questions carefully and prepare to present arguments for both sides.

Should citizens of the United States invest money in the countries of Central America?

Should our government use its influence to protect investments in Central America?

Would Nicaragua have made a better site for a canal than Panama?

Should the United States use armed force to maintain law and order in Central America?



Courtesy Pan American Union

Many men have been heroes to the people of their own country. But the world has known few men like Simón Bolívar, whose stirring deeds and self-sacrifice have made him a hero to the people of many countries.

4. *South America, Old and New*

Three inches of rain have fallen on Cristobal during the night. Now the sun is out, and steam is rising in clouds from the sidewalks, the streets, and the canal itself. The heat seems almost unbearable, and we want to get away. But no more flying right now. A sea voyage would suit us better.

We make the round of steamship offices and by afternoon board a coastwise steamer plying between Cristobal and the cities along the northern coast of South America.

The *Maracaibo Star* is a small vessel with little space for passengers. We are fascinated by strange odors that tell of cargoes of tobacco, coffee, hides, woods,

and many other products of tropical forests and fields. We hear unusual noises, such as the slap of waves on the ship's sides, the groan of winches busily hoisting cases of machinery and barrels of flour from the wharf and lowering them into the ship's hold, and the cries of stevedores and seamen shouting in several different languages.

Long before nightfall the loading is completed, the *Star* gets under way, and we set out to explore the ship from stem to stern. We play with the pet monkey belonging to the mate. We nearly blister our faces in the heat of the boiler in the hold. The most interesting spot of all is the bridge. Here we watch the steers-

man, the compass, and all the various dials, telephones, and speaking tubes used in operating the ship.

Behind the bridge is a chartroom, with maps and books of tables about tides, winds, ocean depths, and distances. These maps could tell an interesting story about the continent we are soon to visit.

We have been in the chartroom but a few minutes when the Yankee captain of the *Maracaibo Star* enters. He is a

friendly sort of person, with a ready answer for our every question. We quickly learn that he has traveled widely in the tropics. During the last decade he has sailed many times around South America. During a one-year leave, he even traveled extensively throughout the interior. He seems quite pleased with our interest in his adventures and his maps, and willingly points out some of the features of the continent we are about to visit.

WHAT THE MAPS TELL US ABOUT SOUTH AMERICA

How does South America compare with our own continent? If we drew a line straight south from New York, we should quickly see that most of South America lies east of that line. In what direction then is South America from the United States? Is a ship leaving New York harbor closer to the western or the eastern coast of South America?

How large is South America? The captain warns us that we cannot always believe the maps when we are comparing continents for size. Some maps are useful for navigators, but do not show the exact shape of the continents. Other maps show the shape very well, but do not tell much about the actual size. It is therefore better to use a globe when comparing continents for shape and size.

When we examine a globe closely, we are surprised to find that South America is both longer and wider than North America. However, because of its shape, it is considerably smaller than the northern continent.

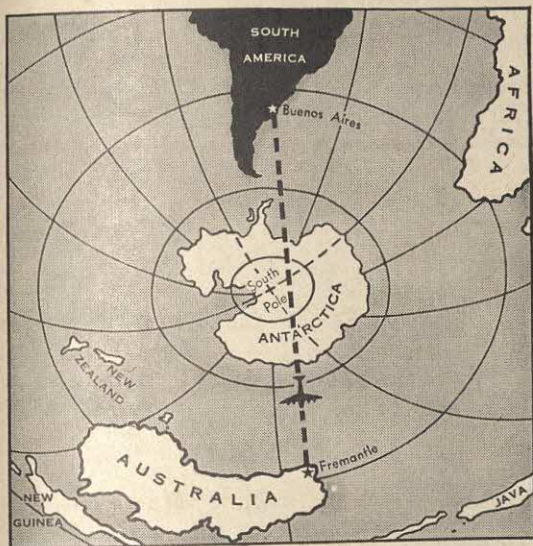
Areas

North America . . . 8,000,000 square miles
South America . . . 6,800,000 square miles

How are North and South America alike? We see at a glance that the two continents are shaped somewhat alike. Both are triangular in form, wide at the top and narrow at the bottom. Both have a great range of high mountains along their western coasts. The western mountains of South America are nearly



This is a view of the globe with South America in the center. Were it not for the 100-mile-wide strip of land joining it with Panama, South America would be completely surrounded by millions of square miles of ocean.



Courtesy Consolidated Vultee Aircraft

The frozen continent of Antarctica lies at the foot of South America. Indeed, some geographers think that Antarctica and South America were once joined through the Andes chain and the mountains that extend northward from Antarctica. This map shows us that the shortest flying distance from South America to Australia would be across Antarctica—instead of directly west, as many of our most commonly used maps show.

“The great central plains of North America,” he adds, “are cold in winter and hot in summer. There is sufficient rainfall to grow enormous quantities of many kinds of crops. These plains are the most productive agricultural regions of North America.

“This is very different from the great Amazon lowlands of South America, where there is no cold season. The region is always hot and damp. Hardly a day goes by without a heavy downpour of rain. During the wettest season of each year, the streams and swamps overflow their

twice as high as our own Rockies. Their highest peaks are always white with snow and ice, even those near the equator.

Both continents have ranges and highlands of old, worn-down, forest-covered mountains along their eastern sides.

Between the mountain chains of both North and South America are vast lowland plains containing many broad rivers. Both continents have deserts.

How do North and South America differ? The greatest difference between North and South America is in their climate. Again our maps show us why. The greater part of North America lies in a region of changing temperatures, whereas most of South America has a hot equatorial climate.

The captain tells us that we shall notice this difference particularly when we visit the lowlands of South America.

Compare the two continents of the Western Hemisphere. The black areas represent the mountainous regions of each. Notice how one great range seems to extend along the western side of both continents. The tiny inset map shows that most of South America is farther east than New York.



banks and cover hundreds of thousands of square miles with their muddy waters.

"This region holds many thousands of square miles of impenetrable jungles and untouched forests. Perpetual shade darkens the ground, and the only sounds are the calls of birds and the cries of monkeys and other jungle creatures. Few human beings wish to live in this vast lowland, and much of the region remains unknown and unexplored.

"Of course," the captain says, "this is not the whole story of South America and its climate." He places his forefinger on the map and moves it slowly southward. "Leave the lowlands of the equatorial region, and you find the heat gradually lessening. The jungles and dampness slowly disappear and forests are thinner. Soon you reach a lowland country on which scattered groups of trees alternate with open stretches covered only with grass. Finally, you will arrive at a region of vast grasslands where scarcely a tree can be seen anywhere, except those planted by man. Here the climate is surprisingly like that of your own Middle West. Here man works in comfort and good health."

How does temperature help determine where men shall live? As we have seen, most of North America is in a region of changing temperatures. The climate, with its regular change of seasons, is healthful and invigorating. Men can produce more, and with less fatigue, than is possible in the tropical lowlands.

In South America the heat of the lowlands robs men of their energy. Moreover, if a man stops work in his fields for a few weeks, vines, trees, and weeds spring up in his clearing and destroy his

crop. This battle of man against nature never ends in the tropics. But in regions of changing temperatures, it is easier for him to keep down weeds.

Thus, few people live in the great lowlands of South America. Most seek the highlands, the coasts, and the milder plains of the south.

THE STORY OF SOUTH AMERICA TOLD BY MAPS

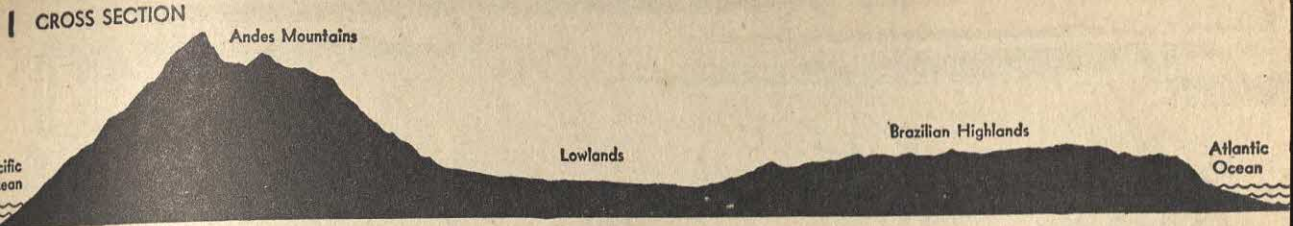
1. CROSS SECTION. Match this cross section of South America with the regional map shown in Number 2 and see if you can tell which region this cross section represents.

2. REGIONS. We must remember that this is a very much simplified map of the main regions of South America. The mountains, for instance, are areas of soaring peaks, deep valleys, and high rolling plateaus. The highland regions are often cut by deep valleys and high ridges that make the land difficult to use and transportation very expensive.

3. RAINFALL. It is impossible for a simple rainfall map to tell more than the average yearly rainfall of a particular region. There are, for instance, some smaller areas where not a drop of rain may fall in a whole year. There are some that have forty inches of rain in two or three months and only ten inches of rain during the balance of the year. Compare this map with Number 5. In what rainfall belts do most of the people of South America live?

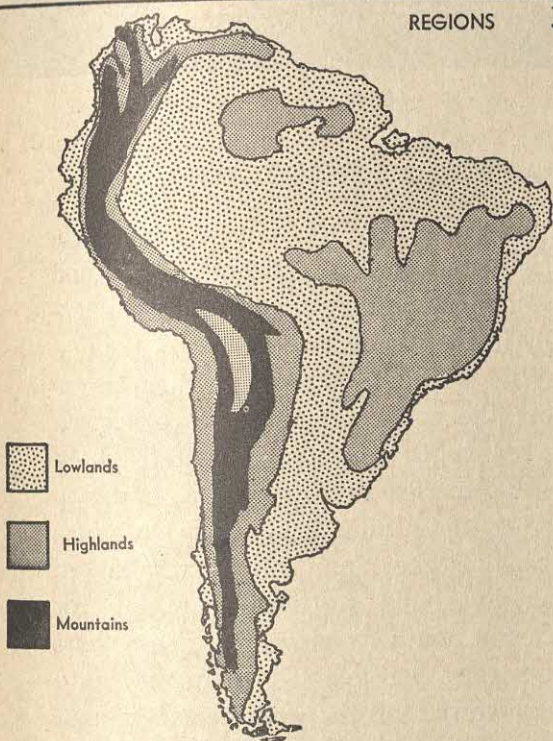
4. VEGETATION. A map such as this attempts to show the most important natural vegetation. But, if we actually flew over these areas, we would, of course, find some grasslands in the forests, patches of forest in the grasslands, and even some shrubs in the desert.

5. POPULATION. When we compare this map with Number 2, it is easy to see that the heavily populated regions are along the coasts or in the highlands. Notice also how in the Amazon basin most of the people live close to the Amazon River.



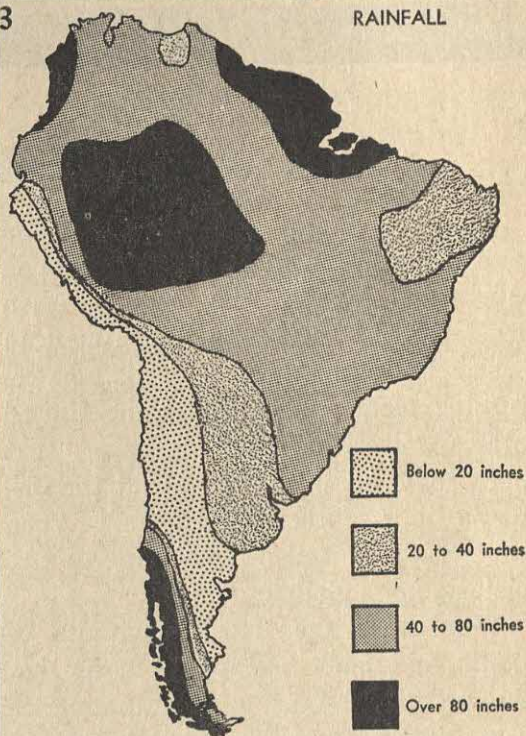
REGIONS

2



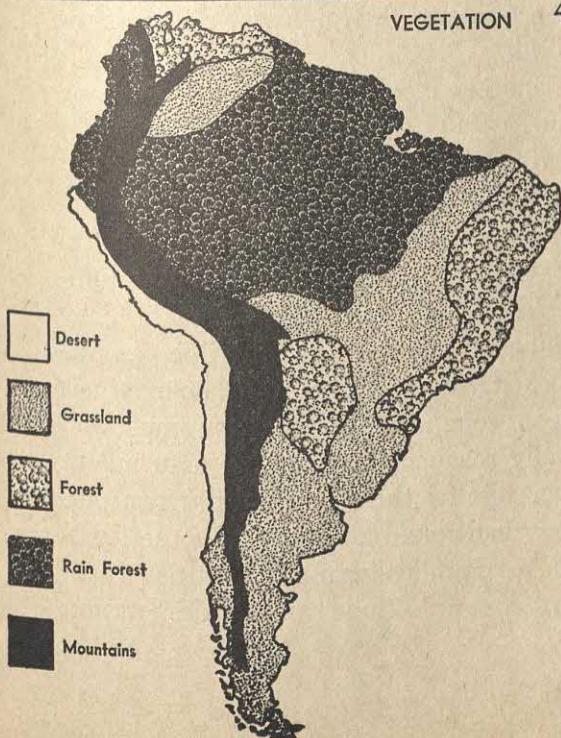
RAINFALL

3



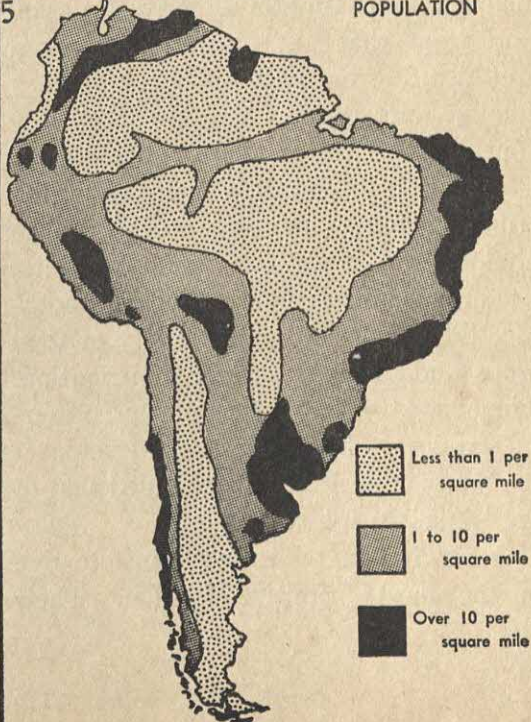
VEGETATION

4



POPULATION

5





THE ROMANCE OF SOUTH AMERICAN HISTORY

During our trip aboard the ship we also make the acquaintance of a young American teacher. His name is Allen Russell. He teaches at an American school in South America and is now returning from a vacation in the United States. "It is too bad," he says, "that our people know so little about the history of our southern neighbors." When we ask him to tell us something of this history, he is glad to do so.

Who were the first inhabitants of South America? Scientists tell us that the first inhabitants of South America were Indians. They came from Asia about 15,000 years ago. They may have reached North America by way of Alaska, and from that point gradually spread southward over both continents. They finally found their way to the very southernmost tip of South America.

Some of the South American Indian tribes traveled a long way on the road to civilization. They had wonderful cities, good roads, sturdy houses, and fine clothing. They raised a great variety of food crops and knew the secret of irrigation. They had strong governments and powerful armies. The civilization of some of the South American tribes rivaled that of the Aztecs in splendor.

Other Indian tribes continued to live in the most primitive fashion. Their

clothing consisted of only a loin cloth, their homes of thatched huts, their food of such plants and animals as grew naturally in the jungle.

Who were the first white men to explore the continent of South America? We remember that Columbus first sighted South America in 1498 while searching for a route to India. And after Columbus, dozens of other Spanish explorers risked their lives and fortunes searching for riches in South America. In a few short years they had battled their way into every corner of the continent, through almost impenetrable jungles, over soaring mountain ranges, across suffocating deserts, down the mightiest rivers of the world.

One old record tells how the Amazon (ăm'ă·zŏn) River was first explored by white men. An expedition of 300 Spaniards and 4,000 Indians started out from the Pacific coast to find the mythical "Land of Cinnamon," which was supposed to have cities built of gold. They struggled across the terrible, snow-blocked Andes Mountains, hacked their way through humid jungle swamps, and finally reached the banks of a turbulent river just as their food supply ran out. They had found a tributary of the Amazon, 3,500 miles from the Atlantic Ocean.

A boat was built, and in desperation

half a hundred Spaniards under the leadership of Orellana (ô'rêl-yă'nă) started down the swollen and treacherous stream to look for food. They never came back. Beating off the attacks of savage redskins, starving and battle-scarred, only a handful survived the thousands of miles of seemingly endless drifting down the mighty stream that carried them to the Atlantic. It was a most remarkable feat.

Those who waited for them to return finally gave up hope and wearily plodded back through the wilderness and across the Andes to the Pacific coast. Of the 4,300 who had started, only 80 Spaniards and less than half the Indians returned to tell the story.

Of another expedition it was said that the trail of the explorers could be traced by the hordes of condors that hovered in

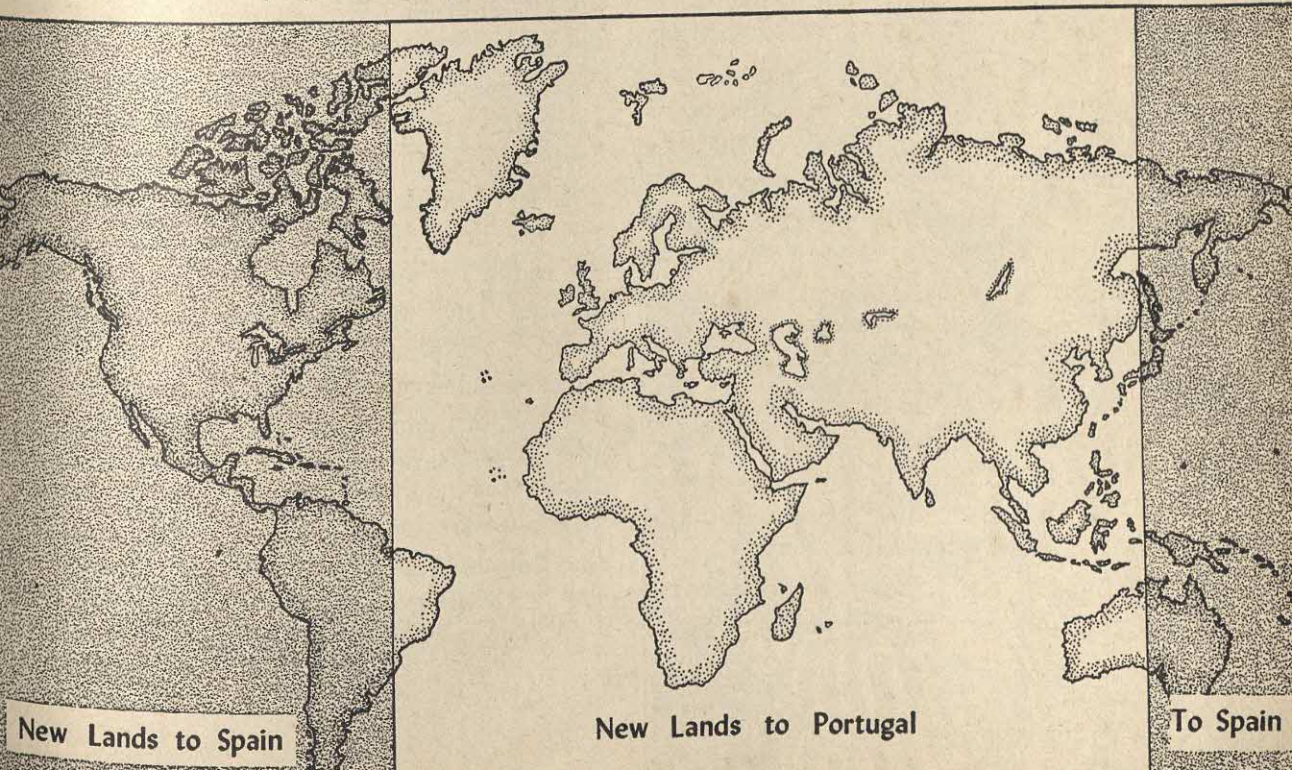
the sky waiting to devour the carcasses of man and beast as they fell by the wayside.

Thus was opened the new continent.

What other people claimed land in South America? Shortly after Columbus returned from his first voyage, the pope, who wielded great power as the head of the Catholic Church, issued a proclamation that all the lands discovered in the *Ocean Sea*, as the Atlantic was called in those days, should belong to Spain.

Portugal protested this proclamation, and so the pope named a dividing line to separate any lands claimed by the two countries. In 1494 Spain and Portugal signed a treaty placing the *Line of Demarcation* 370 leagues west of the Cape Verde (vûrd) Islands. All land east of this line that might be discovered was to belong to Portugal and all west to Spain.

The pope tried to divide the world between Spain and Portugal. Although the other nations objected to his Line of Demarcation, it did help Portugal in her claim to the eastern part of South America. The people of this region still speak Portuguese. What country is this?



Several years later a Portuguese explorer named Cabral (kâ·bräl') set out on a voyage to India, intending to sail around southern Africa. Storms blew him off his course and drove him to the coast of South America. The spot where he landed was east of the dividing line between Spain and Portugal. So Portugal claimed this land and called it Brazil. Spain claimed the rest of the continent.

How did Spain profit from her explorations? As we know, Spain's first explorations were made in search of precious jewels and gold. And how wonderfully rich some of these lands were! It is said that the gold Spain obtained from South America equaled one half of all the gold in Europe before 1492. On one expedition alone the Spanish loot was valued at half a million dollars in gold, plus a great quantity of emeralds of untold worth. No wonder explorers were so willing to risk their lives in adventures into all parts of South America.

But there came a time when the Span-

ish explorers could find no more treasures of gold and jewels. They settled down to the business of operating the mines they had found and the new ones they had started. Then the explorers and the settlers who followed them suddenly discovered that there were other riches to be gathered in the New World.

Spain and all of Europe needed food-stuffs—sugar, coffee, cacao, vanilla—and such products of farm and forest as tobacco, tallow, hides, and wood. Before long, great plantations were sending hundreds of shiploads of these products across the Atlantic.

How did Spain rule her colonies? When Columbus set out on his first voyage, King Ferdinand made him "Admiral of the Ocean Sea," with the power to govern all the new lands that he might find along his way to the Indies.

But this power was soon taken away from Columbus, and a group of the king's advisers, called the *Council of the Indies*, was given charge of the colonies. This council continued to rule for the next 300 years.

It passed laws on every subject imaginable. It appointed dogcatchers to keep dogs out of the churches. When men were needed to work in the mines and the fields, the council parceled out the Indians among the Spanish *Conquistadores* (kõn·kēs·tä·dõ'rēs), or conquerors. It placed some of the Indian tribes in charge of Jesuit missionaries, who taught them how to farm their land, how to read and write, and how to become Christians.

Every Spanish treasure ship carried guns and soldiers for protection against pirates. But even this was not enough. Spain soon found it necessary to send her ships in fleets protected by men-of-war.



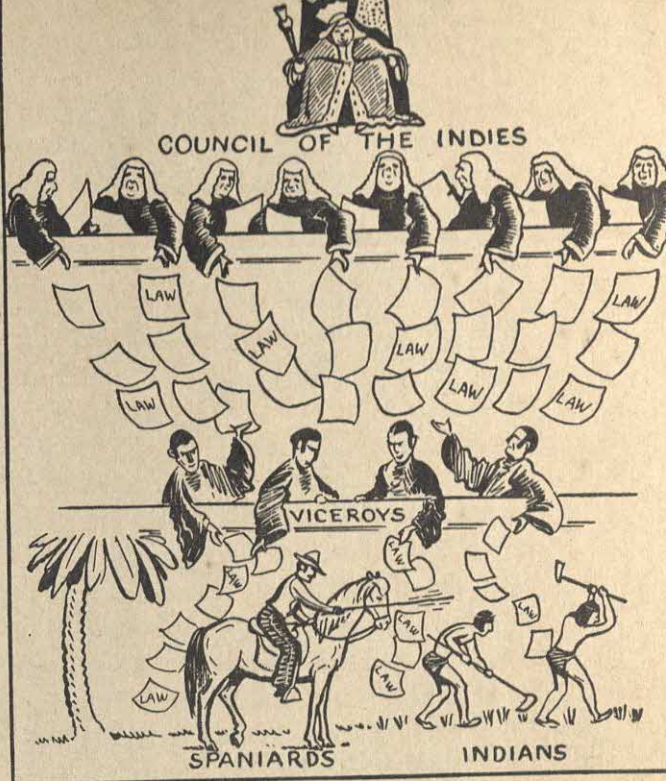
The council enacted a law saying that Indians could not be made slaves unless they were cannibals or had refused to accept the Catholic faith. As Negroes were believed at that time to be cannibals, they were brought in from Africa as slaves to do the heavy work. Of course, Spaniards thought it was beneath their dignity to work with their hands.

It was necessary to secure permission from the council to start a town. And every town according to law had to be built in a certain way. It had to be built around a *plaza*. The *plaza* could not be less than 200 feet wide and 300 feet long. Often it was twice as large. The main streets of the town had to start from the four corners of this plaza. On one side of the plaza, a church had to be built. We have already seen many of these beautiful old churches in Mexico and Central America.

The taxes imposed by the king and his council were very heavy. One fifth of all precious metals had to be given to the king. There were taxes on playing cards, legal documents, tobacco, and even on bullfighting. If a farmer bought a pig he had to pay a sales tax. If he killed a pig and bought salt to preserve the meat, he paid a tax on the salt.

To collect the taxes and enforce the laws in his vast empire, the king appointed many kinds of officers in the New World. There were *viceroy*s, *captains-general*, and *presidents* to rule over the various regions in the New World. These men ruled in the name of the king, who saw to it that there was no self-government in his colonies.

How did the Indians like Spanish rule?
The Indians were always discontented

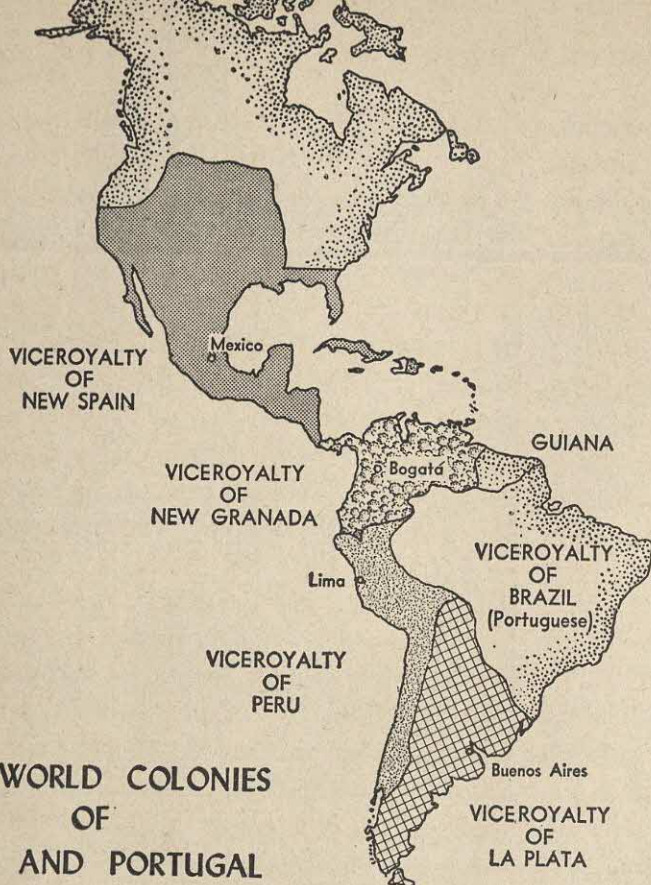


The people of the Spanish colonies had almost nothing to say about their government. Their laws were made in Spain by the Council of the Indies and were carried out by the viceroys of the king.

with the rule of the Spaniards. From time to time they revolted against the men who made them work so hard and pay such high taxes.

To learn why the Spanish always won in battle, one Indian chief became baptized and joined their army. After learning all he could, he returned to his tribe and started a revolt which lasted three years. After several fierce and bloody battles the revolt was finally put down. In this and other revolts, thousands of Indians were killed, many of them being tortured to death as a lesson to other Indians who might make trouble. In the end most of the Indians were subdued, and many became little more than slaves in the fields and mines of their Spanish masters.

NEW WORLD COLONIES OF SPAIN AND PORTUGAL



Shortly before the Spanish colonies rebelled, Spain divided her part of the New World into four viceroyalties. Each of these viceroyalties, or provinces, was presided over by a viceroy, a personal representative of the king. As the problems of governing each large viceroyalty grew and as the fear increased that an ambitious viceroy might become too powerful, Spain subdivided each of the viceroyalties into smaller sections, presided over by lesser officials. What present-day countries are now a part of each viceroyalty? What were the capitals of the viceroyalties? The island of Hispaniola was divided into two parts. The left-hand part, which we now call Haiti, at that time belonged to France.

How did the Spanish colonists like the rule of Spain? A person born in Spain of Spanish parents was a Spaniard. A person born in South America of Spanish parents was also a Spaniard, but he was called a "Creole." The Creoles were never satisfied with their lot in the New World. The man born in Spain looked down on the Creole and considered him an inferior person. The Creole could never become viceroy or hold any other important office. Moreover, the Creole often found himself left out of "high" society. A poor clerk born in Spain might be rated "better" socially than a Creole who possessed vast estates and a fine education. It is easy to see why this kind of treatment angered the Creoles.

But this was not the only reason why the Creoles and the other settlers in New

Spain grew discontented. They were especially bitter about the way the king controlled their trade and commerce.

They were allowed to buy only Spanish goods and had to pay the high prices asked by the Spanish merchants. Often the settlers could have bought goods at lower prices from English, Dutch, and French traders, but this was forbidden. Much of the time foreign ships were not even allowed to enter the ports of the Spanish colonies. As a result, considerable smuggling of goods took place in the early days of Latin America.

Another cause of discontent was the long delay in getting merchandise. Ships could not sail freely between Spain and the Americas. On the average of once a year, a fleet of merchant vessels sailed from Spain to a few ports in the New

World. They carried clothing, luxuries, and tools to be exchanged for pearls, gold, hides, coffee, and other colonial products. The round trip usually took more than a year. Between times the colonists often had to do without things which they needed.

Conditions such as these, added to high taxes, unjust governors, and viceroys, could have but one result—revolt. Over the many years of Spanish rule there were several revolts in the colonies. But they were all put down and their leaders cruelly punished.

How did the United States set an example for the Spanish colonists? When the English colonists in North America succeeded in their revolution against England, the news spread through Latin America like wildfire. People eagerly lis-

tened to the thrilling stories about George Washington. If North Americans could win their independence, why could not South Americans? Behind closed shutters, quietly, secretly, people talked of freedom from Spanish rule. With ever-growing interest they studied the example of self-government set by the United States.

But for many years nothing was accomplished by the Spanish colonists in their fight for freedom. The armies of the viceroys were too strong and could readily crush any uprising. Those who were interested in *fighting* for freedom were too few. They were widely scattered over all Latin America. Distances were so great that the revolutionary leaders were not able to co-operate with one another in the struggle for independence.

HOW THE COLONIES WON THEIR INDEPENDENCE

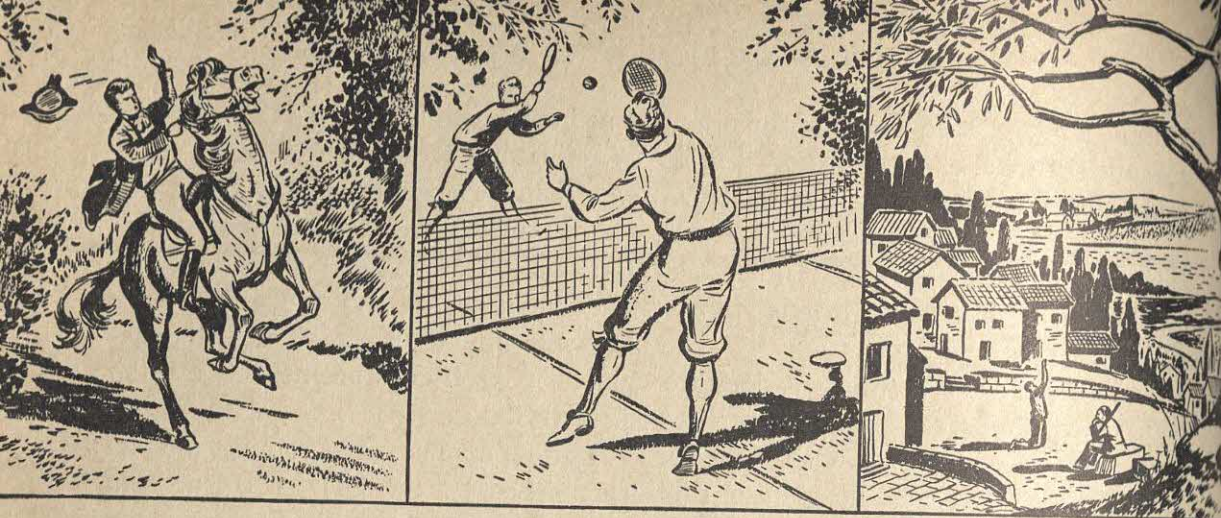
What gave the Spanish colonists their first taste of liberty? When a French dictator named Napoleon overthrew the king of Spain and placed his own brother on the Spanish throne, the South Americans grew rebellious. Although they had not liked the way Spain ruled over them, they absolutely refused to be ruled by this French usurper. Independent governments were set up in nearly every region of Spanish America. Some of the new governments claimed to be loyal to their former king. Others declared themselves free of all kings.

By the time the Spanish king was finally restored to his throne, the South Americans had tasted liberty and were determined to keep it. But they had to fight for fifteen years before their independence was secure. During these war years there rose an indomitable leader

whose name is revered in all of Pan America. Some have called him the "George Washington of South America," but Spanish-speaking people know him as "*El Libertador*" (ěġ lě'běŕ·tă·thōŕ'), the Liberator. His real name was Simón Bolívar (sě·mōn' bō·lē'văr).

Bolívar's vow. "On my honor, I swear that never shall this arm rest until my country is free from the yoke of tyrants!"

"Well spoken, Simón," said old Rodriguez to the tall, wiry young man with olive skin, patrician nose, and burning eyes. For four years those eyes had been sad with grief over the death of lovely Maria Teresa, his bride of a few short months. Fine clothes, travel in the capitals of Europe, night life, music, study—all that money could buy—had failed to remove his sorrow.



1. Simón Bolívar, active, spirited, talented, grows to manhood on the Venezuelan estates of his family.
2. He studies in Spain, beats the future king of Spain at tennis.
3. While in Rome, Bolívar vows to free his country from the yoke of Spain.

But now the sorrow of his personal life had been replaced by a new interest in life. Rodriguez, faithful teacher of former years, had awakened in Bolívar's soul a fervent desire to free South America from Spanish rule.

"I should like to visit Boston before I return to Caracas (kä·rä'käs)," said Simón Bolívar. He and Rodriguez were walking arm in arm down the gentle slope of a hill in Rome, Italy, where the momentous vow had been made. "It's the biggest port in America. And I should also like to talk with President Jefferson."

A year passed, and he did walk the streets of Boston, then of New York, Philadelphia, Washington, and Charleston. Everywhere the hustle and bustle amazed him. The newspapers—free, as they were, to print whatever they wished—delighted him. Along dusty roads the innumerable covered wagons, westward bound, made him wonder. "Ah, if my land were but free," he thought, "it, too, could prosper and grow great."

Sailing from Charleston, South Caro-

lina, he landed at La Guaira (lä gwí' rä), Venezuela (vën'ĩ·zwé'lä), in December, 1806. Zigzagging up the muletrack over the mountains, Bolívar hastened to his beloved Caracas, city of eternal spring.

"Welcome home, Don Simón," said old black Hipólita, the slave nurse of his childhood days, as she swung wide the brass-studded mahogany door. The fragrance of honeysuckle floated through the house. In the *patio* the brilliant bougainvillea (bōō'gún·vīl'ē·ā) blossomed along the walls.

Here Bolívar had grown to be a man. Left fatherless at three and motherless at seven, the curly-haired, energetic boy had inherited a fortune in haciendas, mines, and slaves. A gay personality made him the idol of his family and friends. No one could smile more sweetly, when asking a favor. As a youth, no one could shoot straighter or ride harder than this daring Creole.

He had gone to Spain to complete his education and had quickly become a favorite in the queen's court. One day he played tennis with young Prince Ferdi-



1. Bolívar visits the United States, discusses the problems of freedom with Thomas Jefferson. 2. Venezuela declares its independence, and Bolívar is made a captain in the Army. 3. A terrible earthquake helps the Spanish army to overthrow the new republic.

nand and took one set after another from this future king of Spain. "Little did Ferdinand dream," said Bolívar years later, "that I should take from him parts of his kingdom even as I took from him sets of tennis. And he could do nothing to stop me."

Bolívar had not been back in Caracas for long when Venezuela ousted its old Spanish officials and declared its independence from Spain. The Venezuelan leader was Francisco Miranda (mê·răn'dä), who had devoted his whole life to the cause of freedom. This tireless revolutionary, called the "forerunner of independence," had set the stage for the fight for freedom in South America. He had also kindled the interest in freedom in many younger leaders, including Bolívar—men who were later to guide South American armies to victory. A government was set up and an army recruited. Bolívar became a captain in the army.

What caused the Venezuelan revolt to fail? All went well with the new government until the afternoon of Holy Thursday, 1812. The Easter procession,

watched by thousands of barefooted peons and bejeweled aristocrats, was marching slowly down the cobbled streets of Caracas. Suddenly the sky became black. The earth began to quake and tremble. Houses swayed and cracked and fell apart. Screams of human anguish were heard above the roar of falling buildings. Within a few seconds, Caracas lay in ruins, with 10,000 persons dead. In a distant town the earth opened up and swallowed 1,500 patriot soldiers at drill.

"The earthquake is the judgment of God upon a rebellious people," announced the Spanish priests.

"If nature shall oppose us," cried Bolívar, as he helped in the rescue of his wounded countrymen, "we must force her to obey our will."

The United States Congress appropriated \$50,000 to help the victims of the disaster. But when three shiploads of foodstuffs arrived in La Guaira they were seized by the Spanish, who had already overthrown the infant republic of Venezuela.



1. Bolívar is pulled through the streets of Caracas after a great victory. 2. Later when the Spaniards win again, Bolívar has to flee for his life. An assassin kills Bolívar's friend, thinking it is Bolívar. 3. Bolívar trains a new army and crosses the Andes.

How did Bolívar earn the title of "**El Libertador**"? Undaunted by this first defeat, Bolívar went to *New Granada*, the country we now call Colombia, to help the revolutionists there. He was soon given command of a small army. Then in the middle of winter he recrossed the dangerous Andes and declared "war unto death" against the Spaniards in Venezuela. Men flocked to his banner like iron filings to a magnet, and his army won victory after victory. Triumphant he entered Caracas, riding in a gilded chariot pulled with silken cords by twelve beautiful maidens. The City Council bestowed upon him the title of *El Libertador*. "I had rather be called 'the Liberator,' " said Bolívar, "than to wear a crown of gold."

His hour of glory was short. Unable to buy muskets for his men, "the Liberator" was driven from Venezuela again. One year later he returned, but only to suffer another defeat.

How did the colonists finally win their independence? If we need a sign to show us that Bolívar was a great man, we find

it in his undying determination to continue the fight. Again Bolívar gathered an army and prepared for battle. This time he made his headquarters on the Orinoco River deep in the heart of Venezuela. Fighting men from England and the United States joined him. After months of training he saw an opportunity to free the neighboring province of New Granada.

It took three months to cross 600 miles of flooded lowland. Then 3,000 men started through a little-used pass in the Andes Mountains to meet the enemy. Some died of mountain sickness. Others slipped on the precipitous path and crashed headlong into the valley below. Some froze on the icy trail 16,000 feet up in the sky. Only 1,000 reached the other side alive.

A fierce battle was fought and this time Bolívar gained the victory. New Granada was freed from Spain.

Henceforth, the cause of freedom flourished throughout the northern colonies of Spanish America. Back in Venezuela, with horsemen from the plains of



1. The Spaniards are swept out of northern South America, and Bolívar is hailed as "The Liberator."
2. Bolívar and San Martín meet to decide who shall lead the South Americans in Peru. San Martín retires.
3. Broken in heart and body by the split-up of Greater Colombia, Bolívar dies, penniless and almost friendless.

the Orinoco trampling down the Spanish soldiers, Bolívar won another decisive battle. Venezuela and New Granada united under a single government, and called themselves the *Republic of Colombia*. Bolívar became the President of this newborn nation.

A Colombian army under General Sucre (sōō'krā) was sent southward to help Ecuador win its independence. On a volcano overlooking the city of Quito (kē'tō), victory was won. When Bolívar arrived soon afterward, the people of Ecuador voted to join in a *Greater Colombia*.

How did the other Spanish colonies of South America gain their independence? It was not only in the northern part of South America that the Spanish colonists were fighting for freedom. Far south, in what is now Chile and Argentina, patriots were also trying to set up new governments. For several years there was constant fighting between the armies of Argentina and Spain. Finally, just when it looked as though Argentina was about to be defeated, an officer

named San Martín (sän mār·tēn') was put in command of the army.

South America has two great heroes—Bolívar and San Martín. Bolívar is the hero of the northern part of South America, and San Martín the hero of the southern part of South America.

San Martín was born in Argentina, grew up in Spain, and became an officer in the Spanish army. While Argentina was fighting for its freedom, he returned to South America and offered his services to his native land. He was soon given command of the rebel army.

At that time the nearest Spanish army was west of the Andes, in Chile. San Martín determined to cross the Andes and drive the Spaniards out of Chile. For two years he gathered supplies and drilled his army. His men had to be tough and strong to cross the high mountain passes.

At last the time came to start. Up, up, they plodded through the ice and snow, over trails only wide enough for a single soldier. At length they entered the passes, which were so high that walk-

ing even a few yards in the thin air made the marchers breathless. They kept on, and soon were creeping down the west wall of the Andes. Almost every man came through the ordeal safely. This was a wonderful tribute to San Martín's leadership and to the two years of preparation. There followed a daring and brilliant military campaign. With the help of General Bernardo O'Higgins, the hero of Chile, the Spanish were defeated.

But San Martín knew his work was not finished. He knew the colonies could not be really free until every Spanish army in South America had been defeated.

Two thousand miles north in Peru, there was another Spanish army, with more than 30,000 soldiers. As quickly as possible, San Martín gathered together a fleet and transported his small force of 5,000 soldiers northward.

San Martín soon realized that he could not defeat the main Spanish army without assistance. He decided to ask Bolívar for help. Before long Bolívar brought an army down from the north, and the two generals prepared to march against the Spaniards.

The two liberators met in Ecuador. No one knows just what happened, but it appears that a disagreement arose over who should be the commander in chief. In order that the cause of freedom should not suffer, San Martín decided to retire to private life. He left the glory of completing the war to Bolívar.

This unselfish act for the cause of South American independence was the crowning achievement of San Martín's career.

Bolívar carried on as the leader of all the South American armies. Soldiers from

Greater Colombia, Argentina, Chile, and Peru were all zealously fighting under his banner. Thrilling victories were won, and they closed the glorious struggle for independence. In 1826 the last Spanish soldier was driven from South American soil.

One by one, as the Spanish colonies of South America won their freedom, they set up their own governments. Each adopted a constitution and elected a *President* and a *Congress*. One of the new republics, Bolivia, was named in Bolívar's honor.

How did the new nations fare after the war? Bolívar was now the most powerful man on the continent. As the first president of Colombia he governed a region which included all the lands of present-day Ecuador, Venezuela, and Colombia. He built roads, bridges, and schools. He developed irrigation systems, improved methods of farming, and sought to help the downtrodden Indians.

But Bolívar's stirring deeds were soon forgotten. His followers now began to quarrel and fight among themselves. His trusted lieutenants grew jealous of his popularity. Some people feared that he would try to use his great power to set up a monarchy and have himself crowned king. His enemies began to challenge his leadership. Fighting broke out in the countries he had helped to free.

He was heartbroken when *Greater Colombia* split up into the countries of Venezuela, Ecuador, and New Granada.

In this dreadful hour Bolívar, although only forty-seven years old, found himself no longer able to carry out his duties. Doctors discovered that he had tuberculosis. Finally, penniless and homeless, he

retired to the home of a faithful friend to die in peace. But before death came, he said:

"If my passing serves to unite them, I go to my grave with a calm and contented mind."

So ends the story of Simón Bolívar. But the story of the freedom and of the ideas he left behind is far from ended. During his later years he dreamed of a union of all the free countries of the Western Hemisphere. At his invitation

the republics of North and South America met together in a conference which he hoped would prove the beginning of a lasting friendship among these nations. When the meeting ended, many of the delegates considered it a failure. And perhaps it was at the time. But who really knows! The dreams of unity and the ideals of democracy which brought this first conference together furnished in later years the inspiration for the Pan American Union!

YOUR ACTIVITY PROGRAM

Now that you have read about some of the thrilling adventures of the early explorers in South America and the determined struggles of the colonists for independence, you are ready to enjoy some activities based upon the knowledge contained in this unit and upon the additional reading which you will do.

Solving the Problems

A. *Recognizing the Problems.*

1. Write all the problems of this unit in your notebook.
2. Of the sixteen problems contained in Unit Four, which one appealed to you most? Be ready to tell why.

B. *Gaining the Understandings.*

1. Test your comprehension of what you have read by answering these questions:

Where do most of the people of South America live and why?

Where is the greatest amount of rainfall in South America? The least?

Where did the adventurous explorers seeking the "Land of Cinnamon" end their journey?

What was the dividing line agreed upon to set off Spain's territory from Portugal's? Why did Portugal get fewer lands to colonize than Spain?

In what ways did Spain profit from her explorations?

What were some of the things the King

of Spain did that aroused the indignation of the colonists?

What price were the Indians and colonists willing to pay for independence?

Who was called "El Libertador"?

What disappointment did Bolívar suffer in his last years?

Which of Bolívar's ideals have remained alive?

2. Below are some true-false statements to help in gaining the understandings of this unit. On a separate piece of paper write the number of each statement. Write *yes* after the numbers corresponding with true statements and *no* after those corresponding with false statements.

(1) Most of South America lies southwest of North America.

(2) Both North America and South America are triangular in shape.

(3) The Andes of South America are nearly twice as high as our own Rockies.

(4) Both North America and South America lie mostly in regions of changing temperatures.

(5) The first inhabitants of South America were Spanish explorers.

(6) Portugal had no right to claim Brazil.

(7) The Indians were happy under Spanish rule.

3. Make an outline in your notebook of the sixteen understandings gained from this unit.

Enriching the Understandings

Here are suggestions for a number of activities to choose from that will be profitable and enjoyable.

1. Find books in which you can gain further knowledge concerning some of the early heroes in the wars for South American independence, such as Francisco Miranda in Venezuela, Sucre in Ecuador, O'Higgins in Chile, and San Martín in Argentina.
2. Tell the class any one of the old South American legends or folk tales. Some concern cities of gold and places of fabulous wealth. Use any books available to you in library or school. Have a program period for the telling of these stories and legends.
3. If any of your friends or relatives have visited South America, try to borrow some articles that they have brought home for souvenirs, and prepare an exhibit.
4. Make a scrapbook of clippings and pictures of South America.
5. Make a list of radio programs that deal with South America and have a copy posted on the Bulletin Board for others to see.
6. Find some of the South American national anthems to sing. Perhaps your room teacher or music teacher will help you.

Applying Your Knowledge

Write a paper telling how you can help to promote unity and understanding between the Americas. Keep to things that you yourself can do. The following questions may help you:

What could you say to friends outside your classroom when the subject of Pan American friendship is discussed?

How could you treat fellow students who have come from Latin-American countries?

Do you know where you can find stories and articles written by people of the other Americas which have been translated into our language?

Do you know where you can get the names of some friends of your own age in other countries of this hemisphere who would like to correspond?

Do you know how the Junior Red Cross helps to promote friendship?

Forming Opinions and Attitudes

The word "opinion" may be defined as "what one believes or thinks about something." In previous units you have had some practice in forming sound opinions.

Besides opinions—and "understandings"—we also acquire *attitudes* from our reading and study. It is even more important that our attitudes be well-founded than that our opinions be so. For the attitudes we hold toward a person or a thing determine to a large extent how we act toward that person or thing. We may have the *opinion* that a certain food is good for us, but if our *attitude* toward it is one of dislike, we are apt to omit it from our diet in spite of the good opinion we have of it.

When Simón Bolívar visited the United States and saw how well the new republic was prospering, he voiced the *opinion* that, if his own land were free, it too could grow and prosper. But Bolívar's lifelong devotion to freedom was more than an opinion. It was an *attitude* of undying determination to fight on and on until his country's freedom was fully won.

1. In the light of these examples, what is your *opinion* as to which have more influence upon the way people live—their "opinions" or their "attitudes"? State the reason for your opinion in a class discussion of the question.

2. *Opinions are best expressed in words, attitudes in feelings and actions.* Write two paragraphs explaining what this sentence means to you and why you think it true or false.

3. Discuss the following sentences in class and decide which they are—*opinions* or *attitudes*:

The man born in Spain looked down on the Creole and considered him an inferior person.

The Creoles were bitter about the way the king controlled their trade and commerce.

Some people feared that Bolívar would try to use his great power to set up a monarchy.

"It is too bad that our people know so little about the history of our southern neighbors."

Spaniards thought it was beneath their dignity to work with their hands.

4. Imagine yourself an educated Creole in colonial South America and describe what your attitude would be toward the Spanish aristocrats.



Henry Clay Gipson—*Black Star*

It's great fun to come into a Caribbean port and watch the boys swarm around the ship in their canoes. Let anyone throw pennies or other small change into the water, and they are after the coins in a flash.

5. *Three Countries of the North*

It is the morning of our third day at sea. The sun is shining brightly, and the air is hot. The waves are a thousand mirrors casting reflections of the sun into our eyes.

The voyage, now almost over, has been very restful. The meals at the captain's table were full of surprises—strange South American dishes—and interesting conversation. Allen Russell has been a storehouse of information about South American history and the old *Spanish Main*. The captain of the ship knows geography; and another passenger, Señor Ortega (ô·tă'gä) of Venezuela, is an authority on the products and commerce of this continent.

Señor Ortega specializes in diamonds, which he buys for a New York wholesaler. He is on his way to Venezuela to check on a report that new diamond deposits have been found in the Guiana Highlands of southern Venezuela.

Now Señor Ortega is pointing across the sunlit waters to the south and east. "Make a pair of binoculars out of your hands," he says. "Then tell me if you can see what I do." At first we see nothing but sea and sky. Then, suddenly, in between them, a faint gray line somewhat like a cloud, yet different . . . South America! "Come," calls Señor Ortega. "Let us prepare to land. La Guaira, gateway to Venezuela, is over the horizon."



Courtesy Pan American Airways System

At La Guaira the big boats anchor out in the deep water and are loaded and unloaded by barges and lighters. The town nestles in the valley between the ridges of the Northern Highlands that come marching down to the sea. Barely visible in the picture is the start of the road that zigzags for twenty-three miles over the mountains to Caracas. A plane would go but nine miles to cover the same distance.

VENEZUELA—LAND OF BOLÍVAR

"This port of La Guaira was the heart of the old Spanish Main," says Señor Ortega, as our ship approaches land. "From this port the great galleons of the Spanish Gold Fleet put out to sea on their long trips to Spain. The port was raided so many times by pirates that the Spanish colonists built forts to protect it." He points to the crown of a hill back of the town. We can easily make out the gray walls of an old Spanish fortress.

When we ask if it is still a military fort, he says, "No, it is now only a signal tower for ships coming into port."

The hurry and scurry of leaving the ship are not enough to distract our attention from the strange smells and sounds

that creep in upon us from the land. Something mysterious is in the breeze.

In a moment we set foot for the first time upon the continent of South America. To the south, beyond those hills which now appear to hang right over us, stretches a vast continent. It is new with wonderful opportunities. It is old with a history full of adventure.

The town of La Guaira, which climbs up the Andes mountainside, has a harbor that bustles with the activity of incoming and outgoing ships. For La Guaira is the seaport for the capital of Venezuela, Caracas.

Why is Caracas the "Cradle of South American Liberty"? Leaving sultry La Guaira, our car speeds along one of the

most exciting highways in South America. Caracas is only about nine miles from the sea, but over this winding road we travel twenty-three miles around hair-pin turns, across yawning chasms, and along breath-taking precipices before catching our first glimpse of the red-tiled roofs of the capital.

To the inhabitants of Caracas this is the finest city in all the world. They love the shady streets, the fine houses and government buildings, the magnificent parks, and the green mountains in the background. But best of all they love the climate, for the Venezuelan highlands are a region of eternal spring. Only when it rains do they know that it is winter. Only when it is dry do they know that it is summer.

The spirit of Simón Bolívar seems to walk along the narrow streets of Caracas, where the old Spanish colonial houses still crowd the sidewalks. Through a tall copper-studded mahogany door we enter the spacious home where Bolívar was born. This is the birthplace of South American freedom. The house is very large. There are many rooms, and some

of the furniture formerly belonged to the Liberator's family.

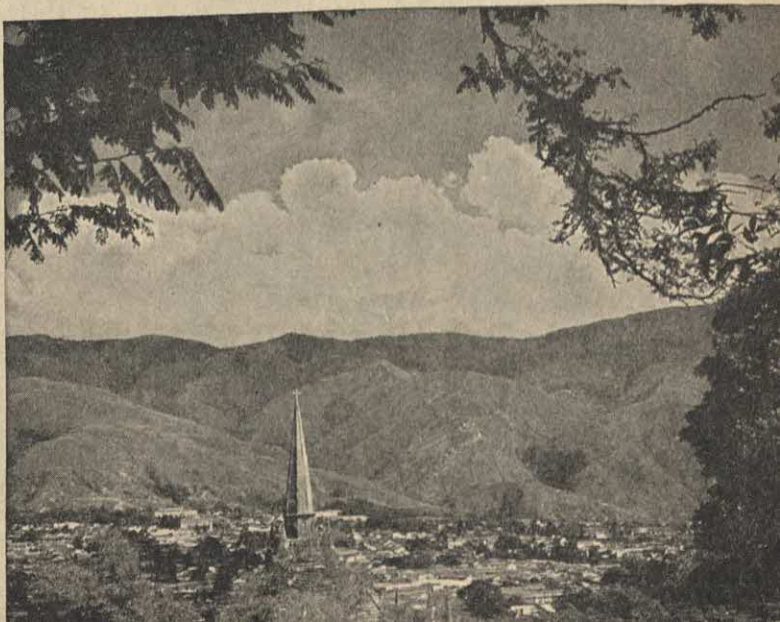
Later in the Bolívar museum we touch the diamond-studded hilt of the sword which a grateful Peru gave to the Liberator. Señor Ortega slowly draws the blue steel blade from the golden scabbard and says, "We Venezuelans think that no one is greater than Simón Bolívar."

What is the story of Venezuela since Bolívar's time? Wars with Spain were extremely hard on Venezuela. Much of her agriculture was ruined, her trade with Spain was broken off, and thousands of her men were killed or injured.

To make matters worse, most of the people of Venezuela were without education, and therefore found it difficult to set up a stable democratic government. So the "political pot" of Venezuela constantly boiled over. Revolution followed revolution, as one party after another seized control of the government. It is little wonder that sanitation, good transportation, modern agriculture, industry, and education made little progress in Venezuela. Today less than one third of the people are able to read or write.

More than fifty years before the Pilgrims came to America, Spaniards from the Old World founded the town of Caracas in a sunny valley of the Northern Highlands. Today it is Venezuela's capital and largest city. It has over 200,000 inhabitants.

Courtesy Grace Line



"But today," says Señor Ortega, "everything in Venezuela is changing. Its government is much like that of the United States. The country is divided into twenty states, two territories, and a Federal District. It has an elected congress, which chooses the president for a five-year term.

"All over Venezuela, people are demanding better roads, a more democratic government, and more schools. The present government is trying to provide an education for everybody. Even the laborers on public works are required to spend two hours of each day in school if they have not already had an education. Some of the schools have fine athletic fields, where football, basketball, and baseball are played."

That afternoon Señor Ortega takes us for a drive out along the Avenue of Mahogany. At the end of the avenue we come to a schoolyard, where children are

playing ball and marbles. The school building appears to us very much like some American schools. There is a school garden at one side, and the windows have colored cutouts pasted on them to celebrate some local holiday.

We drive on through the *Federal District*, in which Caracas is located. The Federal District seems to be similar to our District of Columbia. We pass the Capitol, where the Venezuelan Congress is in session.

How has the United States helped Venezuela and the other Latin-American republics preserve their independence? Later we drive past an impressive statue of George Washington, whom the Venezuelans greatly admire. Then we come to a little green park. Señor Ortega points out a graceful weeping willow tree, saying that it grew from a sprout taken from a tree at Washington's tomb in Mount Vernon.

In front of the tree is another statue. It honors another American, Henry Clay. Clay was a member of the United States House of Representatives in the days when the Spanish colonies were fighting for their independence. He did everything possible to help the colonies win their freedom. And it was largely through his efforts that the United States became the first nation to recognize the independence of the new South American republics.

A few years later the United States was again able to help Venezuela and the other new Spanish-American republics.

Simón Bolívar is revered in almost every country in South America, but the Venezuelans consider him the "father" of their country. This fine statue stands in the Plaza Bolívar in Caracas.

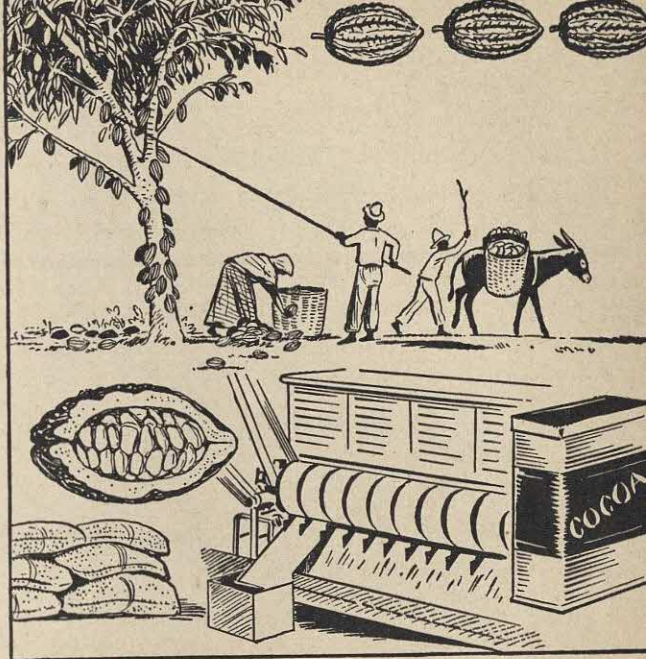


The beans inside the pods from the cacao trees are dried, ground, and processed into cocoa or chocolate.

Certain powerful monarchs of Europe were planning to help Spain overthrow the young republics and recover its lost possessions in the New World. But the people of the United States were determined not to let this happen. Americans like John Quincy Adams and many others persuaded President Monroe to take a firm stand against the European countries. In 1823 President Monroe sent a special message to Congress declaring that "the American continents, by the free and independent condition which they have assumed and maintained, are henceforth not to be considered as subjects for future colonization by any European powers." And the message went on to say that any attempt of a European power to oppress or control the Latin-American republics would be regarded as unfriendly toward the United States. This declaration is now known as the *Monroe Doctrine*, and we have restated this doctrine several times when we suspected European powers of trying to take advantage of our southern neighbors.

The United States acted on this doctrine by going to the aid of Venezuela in 1895. Venezuela and England had quarreled for many years over the boundary line between Venezuela and British Guiana. Finally, President Grover Cleveland of the United States forced the English government to submit its claims against Venezuela to arbitration.

The United States has helped Venezuela in other ways. Within recent years we have loaned Venezuela several million dollars to enable it to cope with problems



growing out of the second World War.

How do people live in the four great regions of Venezuela? Our relief map shows us that Venezuela is divided into four separate regions. What do we call these regions and what do they produce?

The Northern Highlands. A ride out over some of Venezuela's fine new roads carries us through the heart of the Northern Highlands. This is a region of low mountains, deep ravines, rich valleys, and fertile hillsides.

We pass many little cleared fields that make a patchwork of bright green against the dark background of the forests. The fields in the low valleys seem to be all sugar cane or groves of orange and lemon trees. Farther up on the hillsides are coffee or cacao plantations. Now and then we pass irrigated fields, or perhaps pastures where herds of cattle are fattening for market.

On both sides of the road the land is fenced off with thick hedges or with barbed wire that probably came from the United States. Our chauffeur tells us al-



On the coastal plain and in the valleys of the Northern Highlands, much sugar cane is grown. Most of the sugar cane is raised on large haciendas that belong to wealthy landowners. The man that grows the sugar cane is usually a tenant farmer. He lives on the land and works it on shares. The owner usually lives in Caracas.

Courtesy Grace Line

most all the good land in this region is owned by a few wealthy men. They do not live on their haciendas, but prefer to stay in Caracas.

The workers on the haciendas are almost all mestizos who till the fields on shares. Most of them are forever in debt to the owner, so they cannot leave.

Later, we reach the end of the highway and start down a rough trail. We travel only a short distance before passing a burro train loaded with merchandise for distant mountain villages.

What a great difference there is between city and country! Almost everything about the city seems new and modern. There are fine streets, shining automobiles, beautiful schools and churches, imposing government buildings, theaters, radios, newspapers. The whole atmosphere of the country seems to belong to another world. The people are almost all mestizos. Few can read or write, and their ragged clothes and primitive farm implements tell us that they are very poor. Yet when we stop to admire the beautiful flowers around

one tiny thatched hut, a gentleman welcomes us with the same courtesy and kindness as the city people showed us.

Later, he leads us down a steep trail into a sultry valley where he is growing sugar cane. We pass his two sons, stripped to the waist, busily cutting cane with sharp machetes. Farther on, we meet an oxcart hauling a load of cane to the sugar mill. The driver of the oxcart turns out to be the farmer's ten-year-old daughter.

We follow the cart to the center of the valley, where oxen are turning a pair of rollers around and around. When stalks of cane are thrust between the rollers, a little trickle of juice flows into a tub. The juice is then boiled over a fire of crushed cane stalks. When the sirup is thick enough, it is poured into a mold and left to harden into sugar. These loaves of brown sugar are used by all the country people of Latin America. Only in the cities do we find white sugar such as we use in the United States.

Although the people who live in the Northern Highlands of Venezuela seem



A WORLD MAP FOR THE AIR AGE

Ever since the first motor-powered airplane flight by the Wright brothers in 1903, men have made great progress in navigating the skies.

Today's planes can fly to distant points in a few hours' time, whereas the fastest ships require days, and even weeks, of travel. Indeed, no spot on the earth is more than sixty flying hours from the airport nearest to your home. An air age requires new types of maps like

the "equidistant projection" above. This map was drawn so that a straight line from Washington, D.C., the center point, represents the shortest and therefore the fastest route to any other point on the earth's surface.

You will notice that the land areas near the outer edge of the map appear to be considerably misshapen, but this map is the best kind for measuring air distances from a center point.



ATLANTIC OCEAN

CARIBBEAN SEA

EQUATOR

MOUTHS OF THE AMAZON

PLATEAU OF MATTO GROSSO

BOGOTÁ

BUENOS AIRES

LIQUICA



AIRWAYS OF LATIN AMERICA

The airplane has done more than rail-road, automobile, ship, and mule train combined to bring the peoples of Latin America closer together. Probably only a few isolated Indian tribes of the jungles have not seen the great "thunderbirds" passing overhead. The continents of North America, Africa, and Europe are but a few hours or days distant by air route.

This map shows only the principal airways. There are also scores of local lines connecting the main terminals with smaller points off the beaten track.

In the early days, the cowboys of the llanos were Bolívar's fiercest fighters. They are still tough, hard riders and experts with their raw-hide lariats. They often carry a poncho and sleep out in the open wherever night overtakes them.

Philip Gendreau



poor, this region is in many ways the most important part of the country.

It is in this region that most of Venezuela's people live. Here are the majority of her important cities, including Caracas. This region, with its rich soil and fine climate, also produces the country's most valuable agricultural crops: coffee and cacao. Here, too, we find most of Venezuela's industries, such as sugar refineries, and textile, cigarette, and shoe factories.

As more good roads are built and better agricultural methods come into use, the highland region will become even more important.

The llanos. A few days later Señor Ortega invites us to go part way with him on his air trip south. We start from Caracas early in the morning and in less than an hour have left the mountains and foothills far behind. We seem to be flying over an endless brown plain. For miles the landscape remains the same. There are no towns, no roads, no houses, no life of any kind.

"This vast plain," explains Señor Orte-

ga, "is called the *llanos* (lyä'nōs). All of it is less than 1,000 feet above sea level, and much of it is as flat as a table top. We are seeing it during the dry season. The grass looks burnt, and the river beds are dry. Most of the cattle raised here have been sent to the highlands to be fattened for market, just as the cattle of your western plains are sent to midwestern feed lots to be fattened.

"The period from May to October is the wet season. During those months the rivers overflow, and thousands of square miles of the llanos become flooded. Almost the entire region becomes one vast swamp, infested with mosquitoes, flies, and deadly insects."

A little later we fly over our first ranch house. It is a low rambling adobe building with a thatched roof. A cowboy waves up to us from a small field whose greenness contrasts surprisingly with the surrounding stretches of brown.

"That field is irrigated with water from wells," explains our guide. "Perhaps some day more fields will be irrigated during the dry seasons and drained

in the wet seasons. Then the llanos may become one of the most important cattle-raising regions of the world."

During the next hour we see many cowboys. Señor Ortega tells us that the cowboys played an important role in the Venezuelan fight for freedom. A cavalry troop made up of cowboys from the llanos helped Bolívar win some of his most important battles.

We also fly over many ranches, or *estancias* (ēs·tän'syäs), as they are called in Spanish. As we near the Orinoco (ō'ri·nō'kō) River, we notice that many of the houses are crude thatched huts built up on poles. Señor Ortega explains that the owners live on the ground in the dry season, but move to the upper floor when the floods begin. We see dirt roads all leading toward the Orinoco River to the south. Cattle raised here must all be driven south to the river or north to the highlands, for there are no railroads.



The Orinoco is a tremendous river, the fourth longest in South America. We remember that when Columbus passed its mouth he was amazed at the distance to which the fresh water forced its way into the salty Atlantic. To Queen Isabella he wrote that he had discovered the "Gateway to Paradise." He thought that such a powerful stream must surely flow from the heights of Heaven.

An ocean steamer can go 300 miles up the Orinoco's wide waters to the important port of Ciudad (syōō·thäth') Bolívar, our destination. We are told that even here the river rises and falls with the ocean tides. River steamers travel many hundreds of miles inland, but the river is not an important commercial waterway. Do you know why? The climate is stifling hot—even in midmorning—and as a result few people live here. Yet Ciudad Bolívar seems to be a bustling city. Ocean steamers are tied up at the docks taking on cargoes of cattle and hides. River boats from upstream are unloading cattle and hides and rubber, or are taking on cargoes of manufactured products for people of the interior.

The only other important product of this region is oil. A few years ago oil was discovered in the eastern part of the llanos. Each year this field becomes a more important source of wealth for Venezuela.

The Guiana Highlands. At noon we stop for a bite to eat at a sidewalk café. "Ah, a friend!" exclaims Señor Ortega, as he motions to a young man sitting at

Some of the cattle raised on the llanos are driven to the Orinoco River for transport to the larger cities. With irrigation and better transportation, the llanos could become valuable cattle lands.

Philip Gendreau

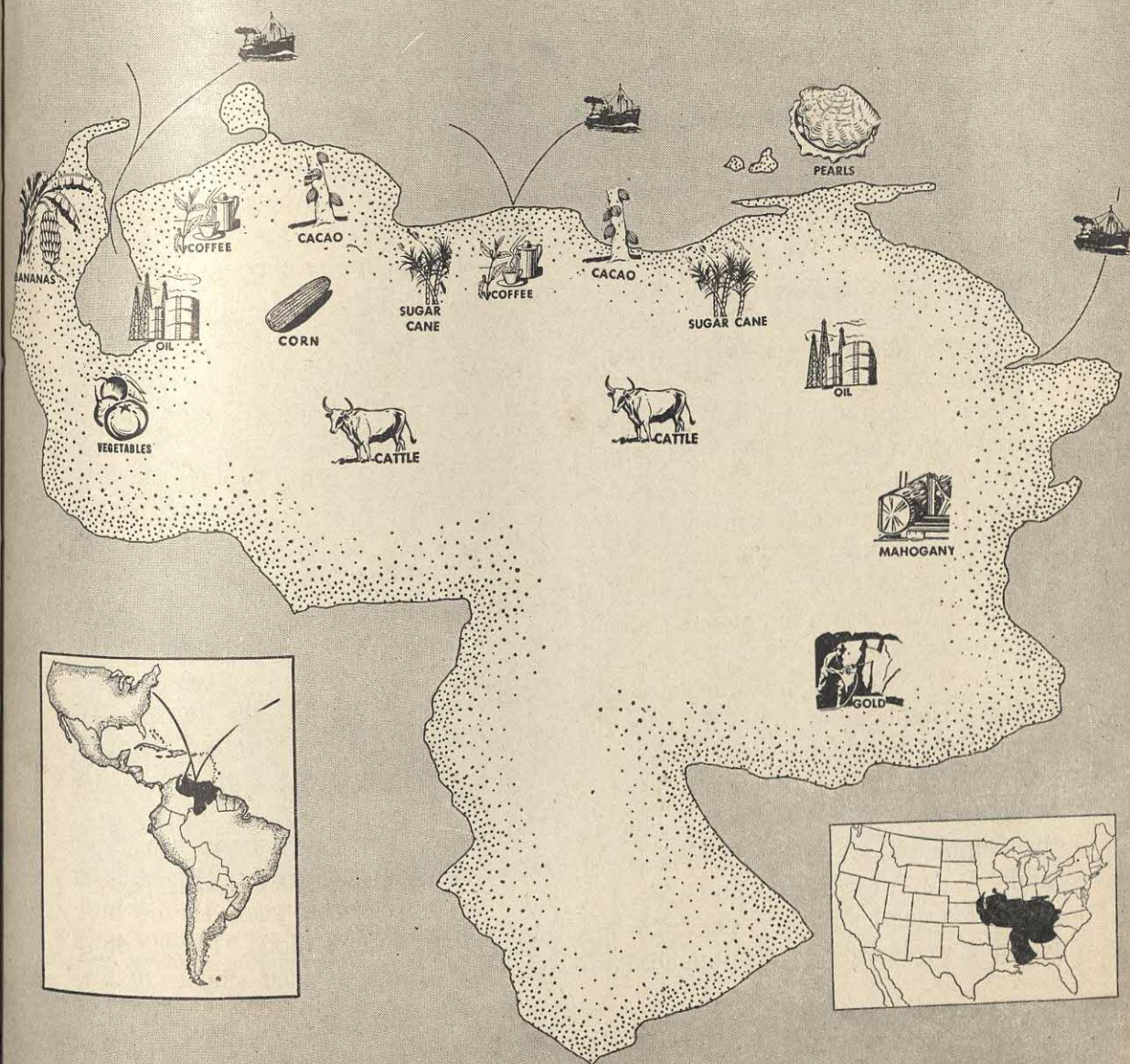
VENEZUELA

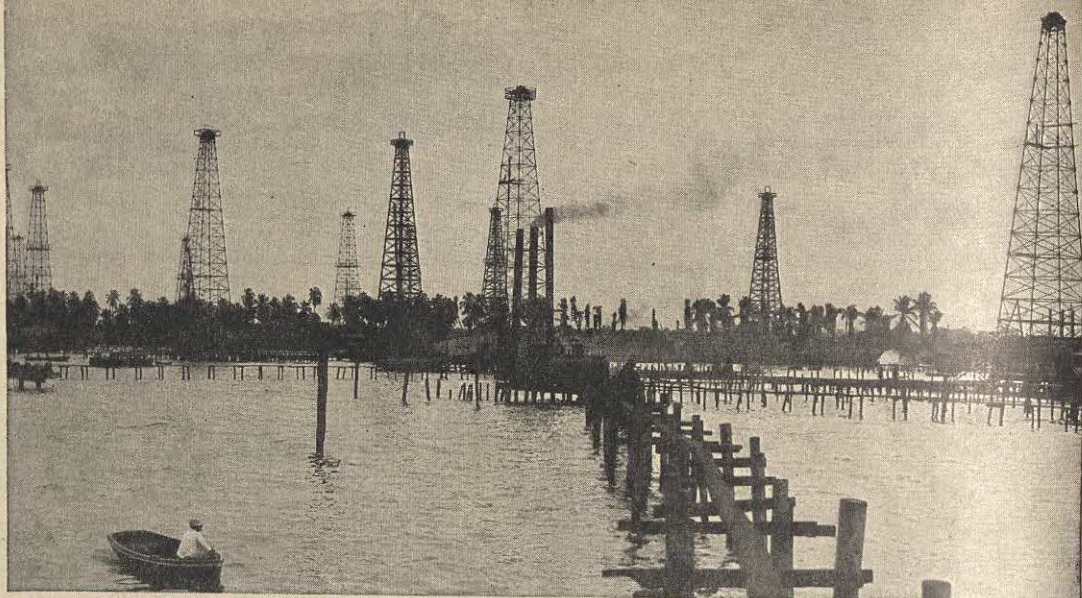
EXPORTS

Petroleum
Coffee
Gold
Cacao
Hides and skins
Rubber
Citrus fruits
Cattle

IMPORTS

Textiles
Agricultural
machinery
Foodstuffs
Chemicals
Automobiles
Iron and steel
goods





Philip Gendreau

American oil companies have spent millions and millions of dollars developing the oil fields in the Maracaibo Basin. Many of the wells have been drilled out in the water of the lake, and sometimes the barges that carry the oil to the refineries at Aruba load right alongside the derricks.

a near-by table. "And what have you been doing since I saw you last?" he asks.

The stranger pulls a small leather bag from his pocket and spills its contents out on the table. We gasp in astonishment. The bag is filled with nuggets of gold! We soon learn that they came from the Guiana Highlands, which lie south of the llanos.

Here is an almost unknown, unexplored region. A few prospectors have ventured into its dense rain forests or climbed its forbidding mountains and brought back gold or diamonds. Some explorations have been made by air. But little is really known of this land. Some day prospectors may stumble on large deposits of valuable minerals, and the Guiana Highlands will echo with the sound of the white man's machines.

In the afternoon we bid good-by to Señor Ortega, who is going by plane to the diamond fields of the Guiana Highlands. We must return to La Guaira.

The Maracaibo Basin. The following morning we board the west-bound Pan-

American Clipper. How different from our lazy trip on the *Maracaibo Star*! The trip that would have taken us a day and a half on the *Star* is made in two and a half hours by clipper. No wonder our plane is filled to capacity.

We are especially interested in a bronzed young man seated opposite us. We soon learn that he is an American engineer returning to his work in the Maracaibo (mä'rä·kī'bō) oil fields. He has been home on a three-month vacation.

He seems anxious to get back. "I was certainly glad enough to get away," he says. "The *Maracaibo Basin* is lowland, you know, and it's in the tropics. That means hot weather. The breezes help some, but it is mighty sticky for anyone from the northern part of the United States, I can tell you."

How has Venezuela made use of its most valuable resource? "But, after all," he continues, "I guess the oil business gets into one's blood. I came down here just after I finished school. At first

I thought I would die, but I soon got to like it. You see the Maracaibo Basin is one of the world's great oil fields. Its production makes Venezuela the third largest oil producer in the world.

"Why, oil pays nearly all the expenses of Venezuela's government. Practically the whole cost of governing the country, building new roads, and providing education is paid for by the taxes which the government collects on the millions of barrels of oil produced each year."

Our first sight of Lake Maracaibo is unforgettable. Rising from the shores and from the very surface of the lake are thousands of oil derricks. Tank farms sprawl over the low coastal plain. Tugboats and oil barges by the score cut furrows in the glassy waters. But we see nothing that looks like a refinery.

"Well," explains our engineer friend, "nearly all the crude oil from these wells

is shipped over to two little Dutch islands lying just over the horizon in the Caribbean. On Aruba (ä·rōō'bä) and Curaçao (kōō'rä·sä'ō), as these islands are called, are some of the world's largest refineries. They are owned by the same American, Dutch, and English companies that own most of the wells in Venezuela."

We soon circle over the city of Maracaibo on the western shore of the lake and slowly glide to a landing on the water. In addition to being the headquarters of many oil and oil-well supply companies, Maracaibo is an important shipping center for the products of the surrounding countryside. Sugar cane, cotton, and bananas are the most important products grown in this lowland basin.

We leave our engineering friend at Maracaibo, where our plane stops for twenty minutes, and then we are off for Colombia.



Ralph Hancock

Good roads are scarce; automobiles and trucks are high in price. So the sturdy mule is the most common means of transportation in northwestern Venezuela. Often these animals carry huge loads and their masters besides.



Courtesy Grace Line

At Cartagena the Spaniards spent enormous sums of money building a great fort as protection against pirates. When the Spanish king was told how much the fort had cost, he stood at his palace window gazing to the west. One of his ministers asked him what he was looking for, and he replied that a fort costing that much must have walls high enough to be visible from Spain.

COLOMBIA—THE GEM OF TWO OCEANS

For what was Cartagena famed in early colonial days? We are in Cartagena (kär'tä·hā'nä), the walled city of Colombia. The sentry box of an old fort looms overhead. The thick stone wall on which we stand is wide enough for six cars to drive abreast. Built 400 years ago to protect the "Queen City of the Indies" from pirates, these mighty walls are still in good condition.

"This sentry box could tell us many a tale of pirates if it could talk," says Don Pedro (pā'drō), our chauffeur-guide.

"A ship's pilot who had been wronged by the governor of the colony led the first pirate attack against Cartagena," continues Don Pedro. "All the people were on the plaza celebrating a feast

day. The raid was a complete surprise. The pilot got his revenge when he saw the governor's house in flames and the town sacked.

"After that, pirates frequently raided Cartagena. You see, gold and silver from all of the rich mines of northern South America were brought to the port of Cartagena. Then every few months a fleet of Spanish treasure ships would put into harbor and load up with gold. Between the visits of the Spanish fleet, the town was a tempting prize. Francis Drake, the English seadog, once captured the city and forced it to pay a huge ransom.

"The biggest ransom the city ever paid was \$5,000,000 to a French admiral, who

was helped by bands of pirates. The biggest victory the walled city ever won was the repulse of a British fleet under Admiral Vernon. The defenders were outnumbered four to one.

"After capturing some of the forts, Admiral Vernon sent word to England that Cartagena would soon be his. His victory over another Spanish city on the Spanish Main had been so spectacular that London began to celebrate. Medals were coined with his picture on one side and the words, *The Spanish pride pulled down by Admiral Vernon*. But the fierce conflict did not end as expected. Many of Vernon's men were killed in battle, and others died of tropical diseases. After trying for two months to take the biggest fort in Cartagena, the British quit and sailed away.

"Among Admiral Vernon's men were British colonial troops from Virginia. One of their officers was a brave young man named Lawrence Washington. When Lawrence Washington returned to Virginia, he built a beautiful home on the

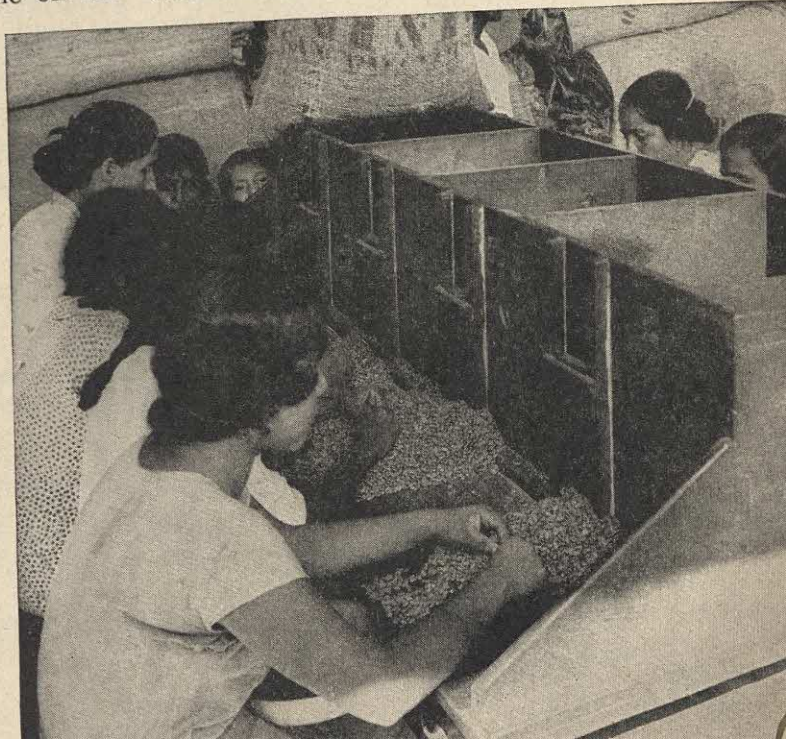
banks of the Potomac River. In memory of his former admiral he named it Mt. Vernon. When Lawrence died a few years later, his Mt. Vernon estate passed to his half brother, George Washington."

What valuable minerals does Colombia export to the United States? As in colonial days, Cartagena is still the port from which Colombia's gold is shipped. In the northwest part of Colombia are some of the world's richest gold deposits. Placer (pläs'ēr) mining for platinum is important in the same region. Much of the placer mining is done by Negroes, who work long hours in the tropical rivers, picking the glittering platinum pebbles from the gravel and mud. Colombia produces more platinum for wedding rings and jewelry than any other country.

In Cartagena's well-protected harbor we see almost a score of oil tankers. Don Pedro tells us that a long pipe line brings the petroleum from the Magdalena (mäg'dä·lä'nä) River basin down to the Caribbean. Oil is Colombia's second most valuable product.

Colombia is proud of her coffee, and rightly so. The coffee has a fine flavor; in addition, every coffee bean is carefully inspected for quality. Colombia stands second to Brazil in the production of coffee. It represents about sixty per cent of her exports. Other exports include bananas, oil, gold, platinum, and emeralds.

James Sawders



Why is coffee the "pride" of Colombia? From Cartagena we make a short hop to Barranquilla (bär'rän-kē'l'yä) over one of Colombia's many local airplane routes.

From the airport we take a taxi to Barranquilla's busy docks and enter a large coffee warehouse. Within the busy building we see great stacks of bags filled with coffee. Coffee is the most important agricultural product of Colombia. Of all the countries in the world, only Brazil produces more coffee. The mild quality of Colombian coffee brings an extra-good price in the markets of the world. Coffee is the "pride" of Colombia and is a very important money crop to the small farmer. Many of those who raise coffee own their own land and they take great pride in producing coffee beans that have a superior flavor.

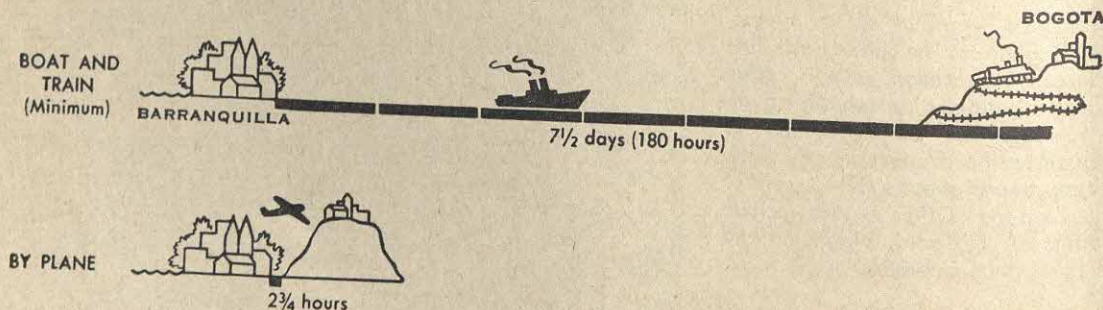
A brisk drive through the clean and well-paved streets of this large city is enjoyable, for the climate here is hot and oppressive. Indeed if it were not for the strong breezes from the Caribbean, many white men could not endure the heat and high humidity. But the tropical climate and fertile soil help the truck farmers near Barranquilla earn a living.

Why is Colombia's best customer the United States? Many of the people living in Barranquilla are engaged in trade and commerce. More than half of Colombia's exports and imports pass through this thriving city. Because many of the products and industries of Colombia can be used to supplement our own, much of its trade is with the United States. The United States has need for its coffee, bananas, and sugar. North American companies refine most of Colombia's oil. Most of its gold and platinum go to the United States. We are happy to learn that "Uncle Sam" is Colombia's best customer. A treaty has recently been made between the United States and Colombia which will make trade relations even better. Barranquilla will continue to grow as Colombia's trade increases.

Why is the Magdalena River important? "All aboard the *Santa Marta!* All aboard the *Santa Marta!*" The last passenger crosses the gangplank, and the great paddle wheel begins to churn. We are on a steamboat pushing up the wide, meandering Magdalena River. For centuries this river has been the chief means of transportation in Colombia. Up this

HOW THE AIRPLANE HELPS COLOMBIA

(Time distance, Barranquilla-Bogotá)



The trip by boat and train from Barranquilla on the coast to Bogotá—a mile and a half above sea level in the Andes—is a rugged one. It takes more than a week. A plane makes it in less than three hours.

Pictograph Corporation

Colombia's highlands are so rough that it is often difficult to build railroads or highways. In some places unique cable ways carry coffee, cacao, and other farm products to rivers or railroads.

James Sawders

river go the sugar and cacao of the lowlands to be made into candy in the highland cities. Down the river come grain and potatoes to feed the people of the coastal plain.

We see rough rafts floating downstream loaded with coffee for American coffee pots. There are wood-burning steamers puffing upstream that remind us of Mark Twain's stories of the Mississippi. On our own three-deck, oil-burning steamer are American radios, oil-well machinery, and boxes of imported merchandise, all headed for the interior.

About one hundred miles upstream, we pass the mouth of the Cauca (kou'kä) River. It is the largest tributary of the Magdalena and is the principal highway for the commerce of the western part of the country, just as the Magdalena is the highway for the eastern part of the country. A day later our boat stops at a port where a railroad connects the manufacturing city of Medellín (mä'thëi·yën') with the Magdalena River. Railroads, trucks, and mule pack trains feed their freight to the river traffic. Jungles and mountains make travel in Colombia very difficult, and most trails end at the river.

In some places the land is so rough that railroads and roads are almost impossible to build. Engineers have therefore devised unique cable railways that carry freight from ridge to ridge over the impassable land. Much coffee reaches the river by cable car.

Swarms of beautiful butterflies float



over the wide waters as our boat surges onward. High overhead sounds the drone of an airplane motor. By air we could go the 600 miles to the first rapids of the Magdalena in a few hours. Air travel is a convenience for passengers, mail, and light freight. But airplanes have not yet solved the problem of transporting the tons of coffee and cattle, pianos and trucks, and other heavy articles used by Colombia's 9,000,000 people.

"*Caramba!*" says a porter as the *Santa Marta* scrapes to a stop on a sand bar. The paddle wheel begins to reverse, and white foam fills its cage. The boat quivers and groans and finally swings out into deep water. The channel of the Magdalena is treacherous and ever-changing, but it carries the largest part of Colombia's freight.

How did a famous legend promote the exploration of Colombia? At the cap-

tain's table in the dining room, we meet Señor Franco López (frän'kō lō'pēs). His family has lived in Bogotá (bō'gō-tā') for nine generations, and he knows the history of his country by heart. He tells us that the Spaniards explored the Magdalena River while looking for *El Dorado* (ĕl dô·ră'dō).

It seems that in the highlands of this region there was a little lake. The Indians who lived there, like many other primitive Americans, were worshippers of the Sun. Once a year they held an amazing ceremony of bloodless sacrifice. To get ready for this ceremony the chief would first cover his body with a sticky ointment. Then he would sprinkle himself with gold dust until he looked like a man of gold and shone like the sun.

At break of day the chief would paddle on a raft out to the center of the lake. As the golden sun appeared in the eastern sky, he would raise his gleaming arms aloft in adoration and after a moment plunge into the clear, cold water. While he washed the gold dust from his body, the people on the shore reverently cast their gifts of gold far out into the lake as an offering to their Sun-God. He became known in legend as the "Gilded One," or "El Dorado." It is no wonder that the Spaniards were thrilled by such a tale. From the north, from the south, and from the east they searched throughout the Colombian highlands for *El Dorado*.

Who first explored this region? The first explorer in Colombia was Jiménez de Quesada (dā kâ·să'thă), a lawyer from Spain. Our trip up the Magdalena takes only a few days, but Quesada and his 166 soldiers spent nine terrible

months covering the same ground. But during these nine months Quesada subdued the Chibcha (chĭb'chă) Indians who lived in this region. The Chibchas were not quite so far advanced toward civilization as were the Mayas and Aztecs. But they did have an organized government, and they elected their own chiefs. They had simple forts and straight roads leading up to them. On their terraced hillsides they raised corn, potatoes, vegetables, and cotton. They spun the cotton into thread and wove the thread into cloth. The cloth was dyed and made into clothing. Their homes were well constructed of wood and dried bricks. Their temples were decorated with gold plate. Warriors painted their bodies with brilliant colors, and everybody wore ornaments of gold and emeralds.

Quesada and his band had much hard fighting before they destroyed the power of the Chibchas. But the loot was enormous—over \$2,000,000 in gold, silver, and precious jewels. Later, the Chibchas became serfs on the Spanish haciendas and helped to make this land valuable to Spain.

After conquering the Chibchas, Quesada grew attached to the fertile fields and mild climate of the high plateau and decided to make this region his home. The land reminded him so much of Granada (gră·nă'dă), his native province in Spain, that he named the country New Granada. And at the foot of a high hill, where there was an abundance of pure water and of building materials, he started a town and named it Bogotá.

More than 400 years have passed since Quesada built his small, crude church

Many buildings of Bogotá are made of stone and have tile roofs. Those that date from Spanish days often have balconies. Few buildings are more than two stories high because of the danger of earthquakes.

Severin—Three Lions

and around it twelve huts, one for each of the twelve apostles. But Bogotá is still the first city of the land.

Why is Bogotá called the "Athens" of South America? Ten days after leaving Barranquilla, our voyage ends and we take a train for Bogotá. Our railroad locomotive puffs and strains up the steep Andes. When we reach Bogotá we find it a modern capital city. There are magnificent churches and luxurious hotels. There are fine theaters, instructive museums, and attractive schools.

We learn that the city manufactures its own electricity with water power from a falls near by. To the Chibchas of Quesada's time the waterfalls were sacred. Now their colorfully dressed descendants sell produce in a market place lighted with electricity made by the falling waters.

Señor López invites us to visit his home. It is an old colonial place with low eaves and a wide balcony overhanging the street. In the reception room an oriental rug covers the floor, and rich tapestries hang from the walls. The library has shelves of books that reach to the ceiling, and the charming patio reminds us of the birthplace of Simón Bolívar. There is a grand piano in one room, and in another a quaint old organ made in Spain and carried over the mountains by muleback. It was a wedding present for Señor López' grandmother.

This delightful climate attracted some of Spain's finest families in colonial times. Their descendants like to call



Bogotá the "Athens" of South America because of its culture.

Why does Colombia have a successful government? Señor López goes with us to see the beautiful capitol building with its massive Greek columns. He tells us that his country has had four names: *the Republic of New Granada, the Granadine Confederation, the United States of Colombia, and the Republic of Colombia*. Its history has not always been orderly, but in the years since Simón Bolívar helped them win their independence the people have developed an efficient democracy. The president and the members of Congress are chosen in regular and peaceful elections. There are two important political parties. More than half of the people of Colombia can read and write. Like the republic of Costa Rica, Colombia has a progressive, democratic government that looks after the welfare of its people.

On the Plaza Bolívar we see men dressed in dark, conservative suits, holding each other by the arms, talking in groups and in pairs. We ask what has happened. Señor López says that it is an old Bogotá custom for men to hold each other by the arms as they carry on an animated conversation. They talk about politics, the latest news, the newest books, Greek philosophy, anything and everything. And they do not go home to eat until the conversation is satisfactorily concluded!

We ask Señor López if that is why Colombia has such a good government. He smiles and says, "Yes, the men talk about what should be done, *and then they do it.*"

What is the heart of Colombia? Later we take a ride on a cable car to the top of a hill which overhangs the edge of the city. With us are many pilgrims who wish to worship at the quaint old shrine located on the top of the hill. From the church we can look out over the high plateau on which Bogotá is located. This tableland is 8,600 feet above the sea.

To the east of Bogotá we can see range after range of mountains stretching away toward Venezuela. We wonder how Bolívar could ever have crossed these mountains with his armies. To our west lies the valley of the Magdalena. Beyond that another mighty range of the Andes rises to 18,000 feet. Farther west is the valley of the Cauca. In these cool mountains and fertile valleys live most of Colombia's people. It is the heart of Colombia.

How does the elevation of the land determine which crops shall be raised? Through centuries of experiment man has

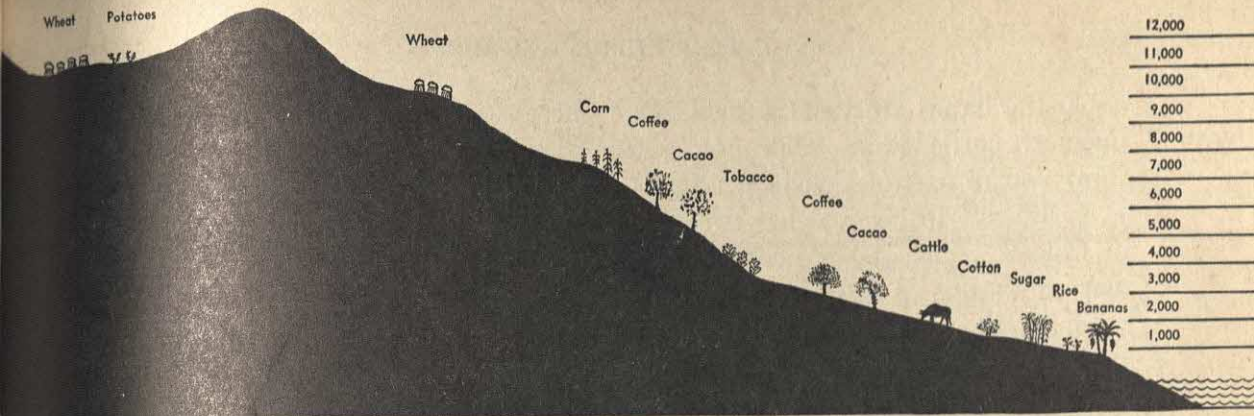
learned to grow those particular crops that thrive best on his land. Often this depends on the soil, the amount of rainfall, or the latitude. In Latin America it often depends on how high above sea level a man's fields are.

We have already noticed that in the lowlands, bananas, cotton, and sugar are favored products. Cattle graze over the *llanos* or grasslands. A little higher up we find cacao, coffee, and cotton. Still higher, on the plateaus, the farmers till fields of corn, barley, and root crops, such as potatoes. Higher yet, wheat is raised.

What is true of Latin America in general is especially true of Colombia. In the hot lowlands along the coastal plains there are banana plantations. In the countless valleys that cut the highlands, much sugar and cotton are grown. Higher up on the hillsides, where the temperature is milder, thousands of Colombian farmers raise coffee. On the plateau around Bogotá wheat and corn are grown.

The farmers who work the fields of wheat and corn in the Bogotá highlands wear straw hats to protect themselves from the burning equatorial sun. Except in the sun they wear heavy woolen ponchos like the serapes we saw in Mexico, to ward off the cold of the high altitude. They have no heat in their houses, and so at night everybody sleeps under several blankets. The boys and girls whom we see have red cheeks, so we know that the climate of this region is healthful.

Señor López points out a highway that goes from Bogotá to the llanos of eastern Colombia. These great plains are a continuation of the llanos of Venezuela. What rivers drain this region?



THE STORY OF COLOMBIA TOLD BY MAPS AND CHARTS

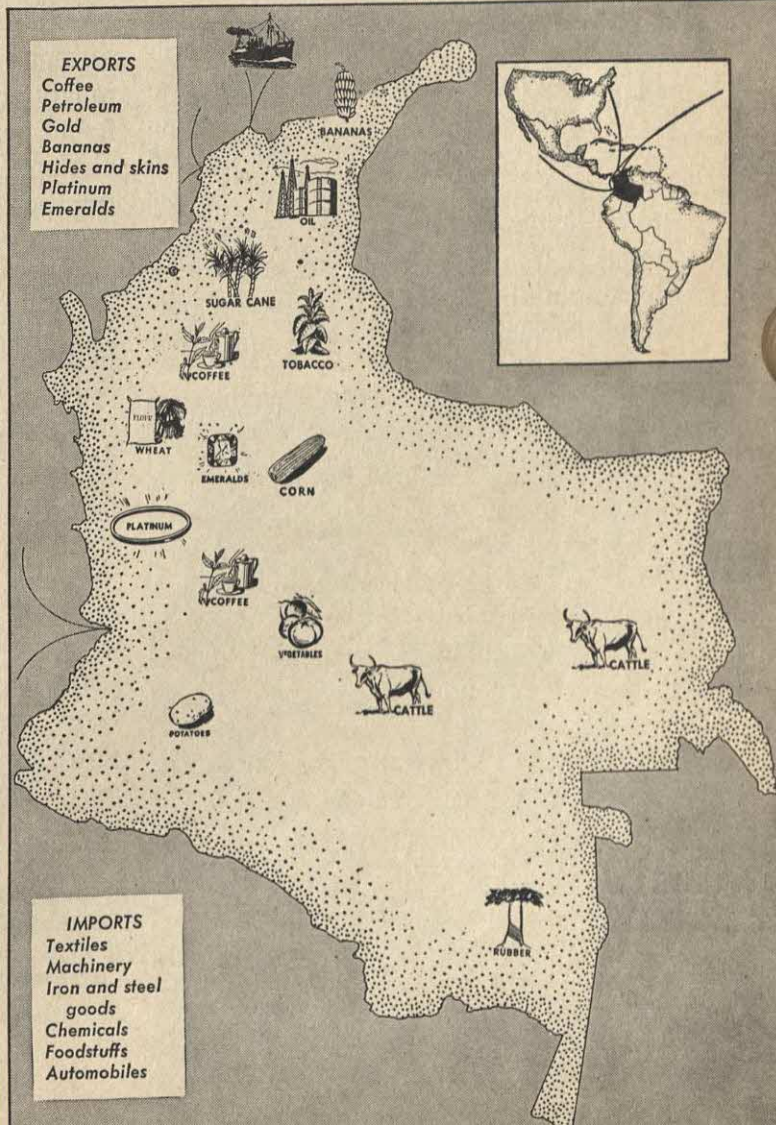
CROPS AND ALTITUDE. We know that in the United States most of our oranges grow in those parts of the country farthest to the south. We know that most of our cotton grows south of Tennessee. But in the tropics, the growing season is twelve months long. There the altitude often determines what crops shall be raised, not the distance from the equator. This cross section of a mountainside in Colombia shows what crops will grow at each level in this tropical region. What crops will grow at an altitude of 10,000 feet? What crops will grow at 2,000 feet?

REGIONS. Colombia's lowlands are found along the coast, and far inland along the great valleys of the Magdalena, Cauca, and Atrato rivers.

PRODUCTS. What products of Colombia are imported by the United States? Colombia is the world's largest producer of what jewel?



-  Coastal Lowland
-  Highland
-  Llanos



On the llanos are vast ranches where longhorn cattle graze. Hides and skins form a small part of Colombia's exports. It is difficult to believe that two thirds of Colombia consists of plains, but the map shows this to be true.

Small tribes of savage Indians live on the Colombian llanos. Some of them use poison arrows and resist all dealings with white men. But these are few in number.

What is Colombia's industrial center? At Bogotá's up-to-date airport, where we are to continue our trip south, we learn that Colombia had the first commercial air line in the Western Hemisphere. It was organized by a foreign company, but is now owned by the Colombian government. All its pilots must be Colombians.

We are sorry that we are not going to be able to visit Medellín, the air and industrial center of Colombia. It has forty textile factories. The government mint is located there. The progressive inhabitants of Medellín manufacture pottery, porcelain, leather goods, and other

necessities. They make beverages, candies, cigarettes, watches, and jewelry. The government encourages industry by protective tariffs and financial assistance. But Colombia still has to import a great many things that it needs.

On to Cali (kā'lē). As we board the plane to Cali, we wave good-by to Señor López, who has been so kind to us. Soon our plane is climbing over the rim of the Bogotá highlands.

In a short while we are flying over the Magdalena River. The stern-wheelers far below look like toys. We continue to gain altitude in order to cross the great central range of the Andes. For miles we see not a house or a road. The mountain ranges are like walls separating the different parts of Colombia. No wonder the airplane is such an important form of transport here!

Now we are coming to the broad expanse of the Cauca Valley. Coffee haciendas nestle in the folds of the mountains. The vivid green of banana plantations here and there border the lazy waters flowing north to meet the Magdalena. Trails, highways, and railroads lead into the city of Cali, where we shall catch the Pan-American plane for Ecuador, "the land of the equator."

Beyond Cali our map shows a narrow coastal plain along the Pacific. Colombia is the only South American country that faces on both oceans. Buenaventura (bwā'nä·vën·tōō'rä) is the chief Pacific port. Through this port go some of the exports and imports of the Cauca Valley.

Colombia's largest port is Barranquilla, near the mouth of the Magdalena River. But she also has a thriving port on her Pacific coast at Buenaventura. Coffee is one of the main exports of these two ports.

James Saunders



ECUADOR—LAND OF THE EQUATOR

The blast of starting motors cuts through the thin air of Cali. Fifteen minutes later our ship has left the airport and is roaring southwestward toward Quito (ké'tō), the mountain capital of Ecuador.

Two hours later we begin to see the roads and rivers below us twisting and bending around the ridges that run down toward the Pacific. The ridges are like a giant's ribs. The giant's backbone is the high ridge of the Andes towering above us off to the left. Presently our plane turns in their direction, dodges a snow-capped peak more than 19,000 feet high, and comes to rest on a high plain. In the distance is Quito, the ancient capital of Ecuador.

As this is the end of our steward's run, he agrees to take us sight-seeing for the afternoon.

"How would you like to see the equator?" asks our guide. We look to see if he is joking, but he seems very serious. So, not knowing just what we are going to see, we jump into a car and are soon speeding over a cobblestone highway, dodging Indians and donkeys, the horn blowing every other minute.

In a little while we stop before a monument of stone with a globe of the world perched on top. It marks the dividing line between the northern and southern hemispheres. In a twinkling we are all standing over the equator, our feet wide apart so as to be in both hemispheres at the same time.

At latitude $0^{\circ} 0'$, which is the equator, the people of Ecuador have built an interesting monument. What does the clothing of the two people in the picture tell us about the temperature at this spot?

Courtesy Grace Line

The equator is of course only an imaginary line that runs east and west around the world exactly halfway between the two poles. On the map there are other lines running east and west around the earth. They are *parallel* to the equator. They are called *parallels of latitude*.

What is latitude? Each parallel on the map is numbered, and the farther away from the equator one goes the higher the number. What do these numbers represent? They represent *degrees of latitude*. In measuring a straight line, one uses a unit of length, such as a foot, or a yard, or a mile. But when measuring a circle, a *degree* is the unit used. A degree is $\frac{1}{360}$ th part of a circle. The sign used to indicate a degree is a tiny circle.

Look at diagram Number 1. How many degrees are there in a circle? In half a circle? In a quarter of a circle?

If a pilot flies around the globe from the equator to the North Pole, then to



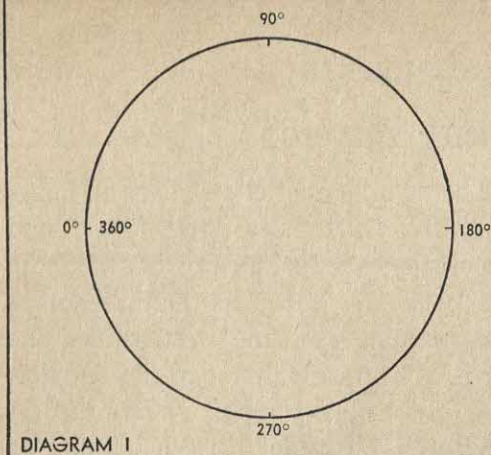


DIAGRAM 1

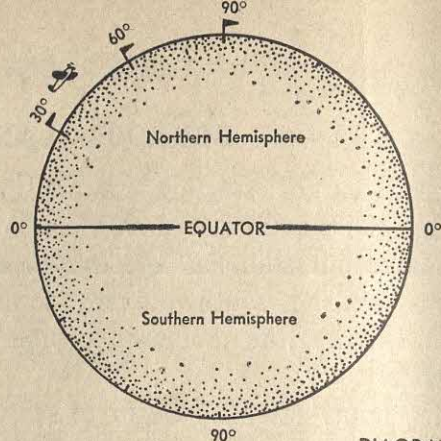


DIAGRAM 2

A circle is measured in degrees. Every circle has 360 degrees. Because the earth is a sphere, its circumference is also measured in degrees. How many degrees from the equator to the North Pole?

the South Pole and back to the equator, he covers 360° of latitude.

Flying from any place on the equator to the North Pole, he covers only 90° of latitude. If along the way he lands at fields which divide the distance into three equal parts, his flight would look like diagram Number 2. The landing fields would be 30° of latitude apart. By means of latitude one can tell how far he is from the equator. What is the difference between North Latitude and South Latitude?

How many miles are there in a degree of latitude? It is about 25,000 miles around the earth. To find how many miles in one degree, we divide 25,000 by 360. The answer is 69.4 miles. For convenience, we say that a degree of latitude is about 70 miles.

Our steward says that with an instrument called a *sextant* the navigator of a ship or plane can tell exactly how far he is from the equator. On ships the officers "shoot the sun" every noon to check their position. This enables them to keep on their course and avoid dangerous waters.

"By the way," our guide continues, as we leave the equator, "do you know the meaning of the Spanish word *ecua-*

dor?" Most of us guess that it must mean "equator" and, of course, we are right. So *Ecuador* really is "the land of the equator."

A visit to one of the oldest cities in the New World. "Quito may be the oldest city in the New World," says our guide, as we ride back to town over the bumpy highway. "Long before the coming of the Spanish conquerors, it was an Inca city. The Incas were the strongest and most civilized Indians in South America. You will hear more about them later. But before the time of the Incas, Quito was the stronghold of various more primitive tribes. One of these earlier tribes was called the *Quitus* (kē'tōōz). From them comes the name of the present capital of Ecuador."

Fortunately it is a clear day, and we can see the eleven snow-capped peaks surrounding the city. Never have we seen nor imagined a setting more beautiful. It was on one of these peaks that the army of General Sucre defeated the Spaniards and freed Ecuador from Spanish rule. It is said that some of the people of Quito stood in the streets and watched the surging battle, cheering one moment, despairing the next. How they must have applauded Sucre's victory!

A visitor to Quito can never forget the lavish decorations on the many churches, nor their bells which always seem to be ringing. Most of the churches were built in the early colonial days by native craftsmen from plans made by architects from Spain.

Courtesy Pan American Airways System

Coming to the center of town, we find Quito's narrow, steep streets alive with traffic. More than once our car becomes tangled with heavily laden burros. If the streets are narrow, they are also colorful. Flowers bloom from ancient balconies, and the vivid ponchos, shawls, and skirts of the Indians make the streets around the market a walking rainbow. Not since we left Guatemala, have we seen such colorful costumes.

Our guide takes us to visit the old university, established many years before any of our American universities. We are also shown the modern office buildings and theaters. One of the latter is called the Bolívar Theater. In Ecuador, too, Bolívar is a national hero.

What are the products of Ecuador's three regions? Like many of the other western countries of South America, Ecuador is divided into three natural regions—the coastal plains, the highlands, and the *montaña* (môn·tä'nyä), or wooded eastern slope of the Andes.

The montaña. This is a hot, wet jungle region. It is only 200 or 300 miles from the Pacific Ocean, but rubber and the other export products of this region reach civilization by way of the Atlantic Ocean. What reasons can you give for this?

Our guide tells us an interesting story about one of the products of the montaña. Years ago, when the Spanish still ruled this land, the wife of a viceroy, Countess Chinchón (chēn·chōn'), became ill with a terrible attack of malaria.



None of the doctors of the court were able to help her. Finally, an old Jesuit priest remembered a remedy used by the Indians. So he brewed a tea from the bark of a tree that grew on the eastern slopes of the Andes in the montaña. The powerful liquid cured the Countess. In Europe the bark came to be called *cinchona* (sĭn·kō'nă), after the Countess.

We call the drug that comes from the bark of the cinchona tree *quinine* (kwī'nĭn) because the Indian name for it was *quina* (kē'nă). This is a very important drug, and our government is encouraging Ecuador to cultivate more cinchona trees.

The highlands. We know that in lands near the equator most of the people live in the highlands. This is true of Ecuador. Of its three million inhabitants, two and a quarter million live in the valleys and high plateaus of the Andes. Except in cities, where there are many peo-



James Sawders

Good roads are few and far between on the wind-swept highlands of Ecuador. Even on such fine roads as the Pan American Highway there is little motor traffic—mostly barefooted natives and livestock.

ple of Spanish descent, most of the highland dwellers are Indians and mestizos.

They have but few possessions—a one-room hut with an earthen floor, a lean-to for cooking, a tiny plot of ground on which to grow corn, potatoes, and barley, a few sheep, a pig or perhaps a cow, and a primitive loom.

Only a few of the Indians of Ecuador speak Spanish. Contact with the white

man seems to have changed them little.

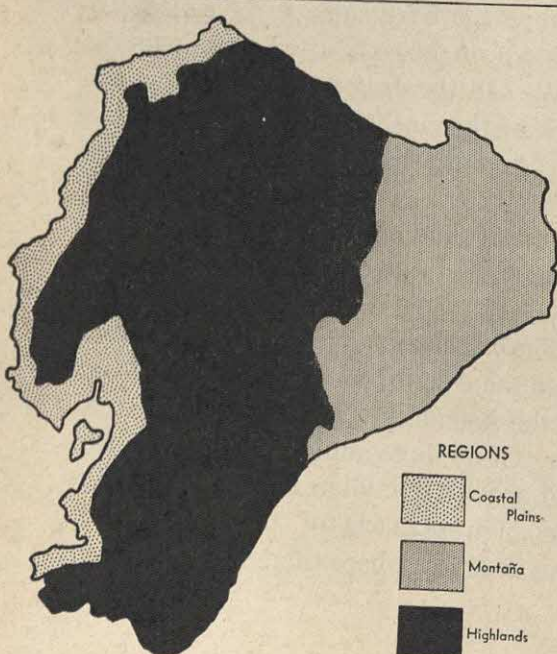
In these high plateaus the sun is hot, but in the shade and at night the air is always cool. Some of the products such as potatoes, corn, barley, wheat, and oats are the same as those grown in temperate lands like the United States.

The coastal plain. Next day we board the train at Quito for the coastal plain. This railroad is one of the few that cross the Andes—a marvel of engineering skill with its many loops and tunnels, its bridges across terrifying gorges, and its zigzagging paths up steep canyon walls.

Little by little our train edges its way down to the coastal plain. Here are grown Ecuador's important export crops such as cacao, coffee, rice, and bananas. We arrive at a place across the river from Ecuador's largest city, the seaport of Guayaquil (gwī'ä-kēl').

Our motorboat trip across the two-mile wide Guayas (gwī'äs) River is full of

The Andes highlands, with their snow-capped volcanic peaks, separate the hot, damp coastal lowlands from the tropical jungles of the montaña.



REGIONS

-  Coastal Plains.
-  Montaña
-  Highlands

Guayaquil is Ecuador's major port and the largest city of the coastal lowlands. One of the interesting sights of the city is found on the side streets where cacao beans are being dried and sorted. These beans are Ecuador's chief export.

Courtesy Pan American Airways System



surprises. We see rafts piled high with jungle produce. Whole families are enjoying the thrill of going to market on their rafts. But what interests us most are the rafts themselves. They are made of *balsa wood* and are so light that they can carry enormous loads for their size. After selling the load, the Indians then sell the logs in the raft. Often these logs bring more than the load they carried. How do we use balsa wood?

What are some of Ecuador's exports?

Perhaps the most interesting thing we see in Guayaquil are the chocolate-coated streets. They are really covered with chocolate.

Cacao beans, from which chocolate is made, are brought to Guayaquil for shipment. Spread out to dry on the paved streets, these cacao beans cover entire

blocks. Hour after hour barefoot men walk back and forth stirring the beans to help them dry. The chief export of Ecuador is cacao beans. Do you know the difference between cacao and cocoa?

Everywhere we go we see men and boys carrying trays of delicate, hand-carved, ivorylike objects for sale. There are all kinds of animals and statues and chessmen and images. When we buy some for souvenirs, we learn that these things are carved from the *tagua* (tä'gwä) nut, or vegetable ivory.

The tagua nut is the seed of a stunted palm that grows in the jungle. When dry, it resembles real ivory in hardness and color. The Indians gather the nuts for shipment to the United States. Some of our finest buttons are made from this vegetable ivory.

In many of the coastal towns of Ecuador an important industry is the weaving of Panama hats. All the weaving is done by hand, most of it by women and children.

James Sawders



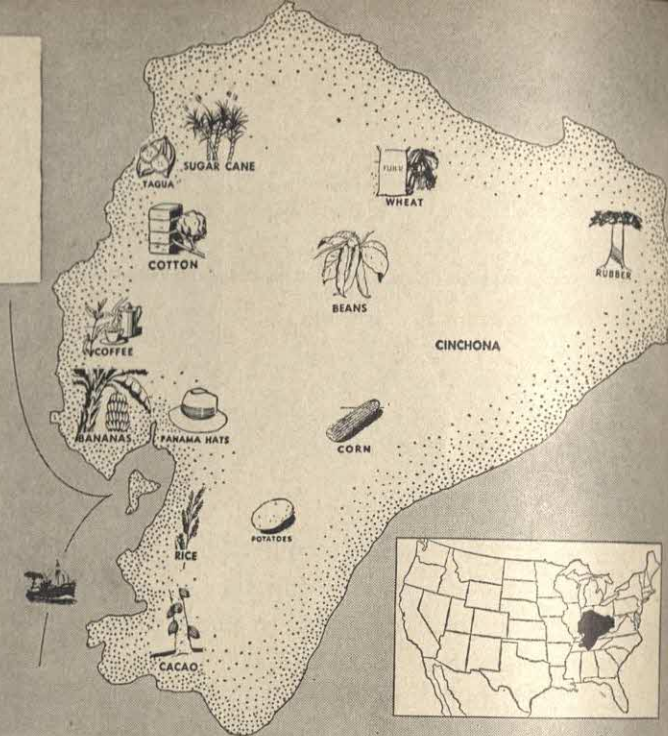
ECUADOR

EXPORTS

Cacao
Coffee
Petroleum
Mineral ores
Tagua nuts
Panama hats
Rice

IMPORTS

Textiles
Foodstuffs
Machinery
Chemicals and
drugs
Iron and steel
goods



Only a few products of Ecuador find their way to the United States. These include Panama hats, cacao, and tagua nuts.

Another product of Ecuador is Panama hats. When the gold rush of 1849 started, many men went by boat to Panama, crossed the isthmus, and then went up the Pacific coast to California.

The light, comfortable straw hats which they bought on the isthmus came to be called "Panama hats." But they had really been made in Ecuador, which still makes the best Panama hats.

These popular hats are woven by hand from a palm straw. In almost every street of Guayaquil little shops offer Panama hats for sale. Some of these hats are made with a coarse weave, but others are wonderfully fine. In one or two shops we see hats priced as high as \$200. "For rich norteamericanos," laughs our guide as we hurry to the airport. Our plane is to leave Guayaquil at 10:50.

YOUR ACTIVITY PROGRAM

Now that you have read the unit about three of the interesting countries in the northwestern corner of South America—Venezuela, Colombia, and Ecuador—you are ready to check your knowledge, get other interesting information, and do many other activities that will make these countries seem more real and interesting to you.

Solving the Problems

A. Recognizing the Problems.

1. Write the twenty problems that are con-

tained in this unit in your notebook.

2. Check the problems that seemed of particular interest to you and tell why.

3. Which problem deals particularly with the relationship between the United States and the Latin-American republics? Be able to point it out and tell something about the history of this relationship.

B. Gaining the Understandings.

1. Reread any parts of this unit that you think you need to review. Make sure you

have gained the "understandings" which the authors have tried to impart.

2. Be prepared to answer these questions in class:

Why do the inhabitants of Caracas think it is the finest city in the world?

Why has the path of democracy been rocky in Venezuela?

In what way was Henry Clay of service to the South American republics?

What were the provisions of the Monroe Doctrine and how did it help the South American republics?

Into how many regions is Venezuela divided?

What types of people own most of the land in Venezuela and where do most of them live?

What is raised on the *llanos* of Venezuela?

What did Columbus think about the Orinoco River when he passed its mouth? Why did he think this?

Why has the Guiana Highlands section of Venezuela not been fully explored?

For what product is the Maracaibo Basin particularly famous?

Why was Cartagena made into a walled city during Spanish colonial times?

Where are Colombia's richest gold deposits?

Why is trade between Colombia and the United States particularly helpful to both countries?

Why is the Magdalena River important to the inhabitants of Colombia?

What was *El Dorado*?

What Indians living in Colombia were subdued by De Quesada and his Spanish followers?

Where is the capital of Colombia? Why is it famous?

Why does Colombia have a progressive, democratic government?

What is the latitude of Bogotá? Of Quito?

How many geographic regions are found in Ecuador? What are they called?

What product is grown in Ecuador that is useful as medicine?

What wood comes from Ecuador that is famous because it is light?

Where did Panama hats originate?

3. Check yourself by the use of the following true-false exercise. Write the numbers 1 to 15 on a separate piece of paper. Put a plus sign (+) after each number that corresponds with a true statement and a minus sign (—) after each number that corresponds with a false statement.

1. Bolívar was born in Bolivia.

2. All the people of Venezuela are able to read and write.

3. In Venezuela the workers on the haciendas are nearly all *mestizos* who till the fields on shares.

4. The *llanos* of Venezuela are about 10,000 feet above sea level.

5. Oil is a valuable resource in Venezuela.

6. In the early days Colombia was troubled by pirates.

7. Colombia exports gold and platinum to the United States.

8. Colombian coffee is exceptionally strong.

9. The Magdalena is the most important river in Colombia.

10. It is easy to build highways in the Colombian highlands.

11. The Chibchas of Colombia were not quite so far advanced toward civilization as were the Mayas and Aztecs.

12. The people of Bogotá take no interest in politics.

13. The city of Medellín in Colombia is an industrial center where many useful things are made.

14. Ecuador faces two oceans.

15. The equator runs through Ecuador.

4. Make an outline of the material contained in Unit 5 and put it in your notebook. Be sure you have your main points well stated and be sure your subpoints under each heading relate closely to the "understandings."

Enriching the Understandings

1. Find books, pamphlets, and pictures pertaining to any one or all three of the South American countries studied thus far. You might choose one of the topics that you checked as being of

special interest to you and do further reading concerning it. (The National Geographic Magazine for February, 1934, has a good article about Ecuador and the same magazine for March, 1946, contains an article and many pictures of Colombia. One of these pictures shows the men holding arms while chatting in Bogotá. You will find other references in the bibliography section at the beginning of this book.)

2. Make a relief map of Venezuela out of moistened flour and salt on cardboard, showing the four regions: the Northern Highlands, the llanos, the Guiana Highlands, and the Maracaibo Basin.
3. Take a large square hatbox and cover one side with cellophane. Inside the box make a diorama of different scenes of interest which you have read about in this unit. One scene might be of a jungle, another of a town, another of the walled city of Cartagena and the pirate ships. Your figures can be made of wire pipe-cleaners twisted into shape and dressed. Have an exhibit of your dioramas.
4. An "Information Please" program could be arranged, using information gained from outside reading. Questions submitted by different members of the class could be chosen by a committee according to their merit. Contestants could be drawn by lot or chosen by a committee or teacher.
5. Continue with the collection of coins and stamps started before.
6. Make lists of the animals that live in these three countries. Find pictures of as many as you can. It would be interesting to visit a zoo if one is near, and see some of the beautifully colored birds and strange animals that live in this region of South America.
7. Add the flags of Venezuela, Colombia, and Ecuador to your collection of drawings or real flags.
8. Write a list of the fruits and vegetables grown in northwestern South America. You will find much additional information in your outside reading.

Applying Your Knowledge

Write a report telling why trade with Venezuela, Ecuador, and especially Colombia, is beneficial to both United States and to these countries. Bring out the following points:

- Kinds of products that are sent each way.
- Exchange of ideas and cultures, and what some of these are.
- Growth of friendship.

Forming Opinions and Attitudes

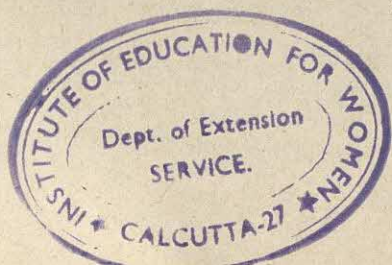
1. Through reading and discussion try to form sound opinions concerning each of the following:
The pirates had as much right to the gold of Cartagena as the Spaniards had.

The history of Venezuela proves that its citizens are not ready for self-government.

It is the Ecuadorian Indian's own fault if he has a harder lot in life than the landlords and white aristocrats have.

2. After giving the matter considerable thought, write a paper describing your attitude toward Venezuela or Colombia as a place in which to live. Would you prefer it to the United States? Do you think you could stand the climate? Would you expect the inhabitants to make congenial friends and neighbors? What aspects of the country appeal to you? What aspects do you dislike?

3. If our present friendly relations with Latin America are to continue and to grow, it is very important that the people of Latin America know us as we really are. At present, their knowledge of us is based to a large extent upon what they learn about us from our motion pictures. Think of some of the motion pictures you have seen in the last two years and try to imagine what sort of opinions the Latin Americans would have of us if all they knew about us was what they saw in the "movies." In what ways do our motion pictures give a misleading impression of us to strangers? What do you think ought to be done about it? Be prepared to discuss this subject in class.





Courtesy Office of Propaganda, Peru

Of Peru's many riches, her guano islands are the most interesting. Millions of sea birds live on these islands, feeding on the fish that swim in the Humboldt Current. Guards, living on the islands, prevent intruders from frightening the birds away. About every four years the guano deposits are removed.

6. Along the Andes

We are flying south across the Gulf of Guayaquil. Soon we leave far behind the lush, green, tropical shores of Ecuador and are speeding along above a rolling sandy coastland that sweeps off toward high, white peaks in the east. The country below us gets drier and drier the farther we fly.

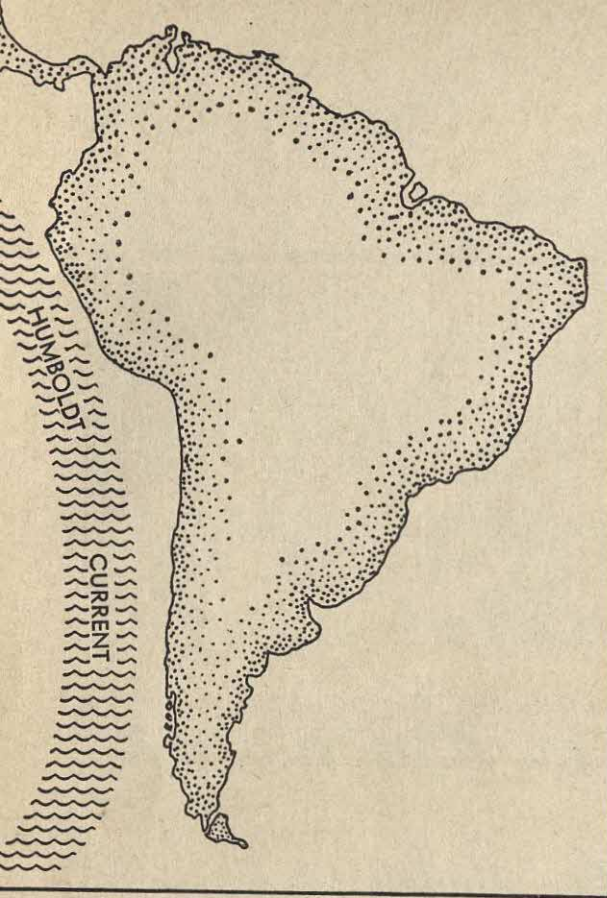
"It is the *Humboldt Current* that makes this coast a desert," volunteers a fellow passenger. He is Señor Ricardo Palma (rē·kär'dō päl'mä), and he is returning from an Inter-American Conference on Geography and History held at Mexico City. His home is in Santiago, Chile, where he works in the National Library.

What is the importance of the *Humboldt Current*? This current starts far south in the cold Antarctic. It flows

north along the western coast of South America like a river of ice water, cooling the breezes which blow toward the land. When the cool breezes reach the warm coast, they expand and take up moisture from the soil, leaving the land dry and barren. Not until the breezes reach the colder heights of the Andes do they begin to lose their moisture. There the moisture falls as snow.

Thus, for 2,500 miles along the coast of Chile and Peru, there stretches an extraordinary region where little or no rain falls for years at a time.

The Humboldt Current is important in another way. It is rich in tiny marine plants and animals on which fish can feed. As a result there are myriads of fish in these waters. These fish in turn are food for millions and millions of sea



The Humboldt Current was named after a great German naturalist who explored much of South America in the early 1800's. How does the Humboldt Current affect the Pacific coast of South America?

birds which make their homes on the small islands off the coast of Peru.

It almost seems as if these birds were created for no other reason than to change the fish which they eat into a valuable fertilizer called guano (gwä'nō). The islands on which the birds live are often called "the guano islands." They are owned by Peru, and the Peruvians obtain much of the fertilizer they use for their crops from these islands.

Señor Palma says that he has passed through these waters on a boat and that the flocks of birds hide the sky like great clouds. Not long ago scientists made a census of one little island and estimated that over 5,000,000 birds lived there.

PERU—INCA TREASURE CHEST

Our trip down the dry, brown coast of Peru is one of the most uninteresting we have ever made. Only here and there, where a river runs from the mountains down to the ocean, do we see green fields.

How did civilization begin in Peru?

"Look," says Señor Palma, pointing to some crumbling, earthen ruins stretching over the dry coastal plain for miles in every direction. "That is Chan-Chan (chän'chän'), capital of the great Chimu (chē'mō) Indian empire. The Chimus built up a civilization hundreds of years before the coming of the white man. Huge reservoirs to store water and long aqueducts to carry it to the irrigated fields were necessary in order to grow the crops to feed the many people who lived in this coastal empire."

We look down at the sandy remains of a palace that must have had 500 rooms. Some scholars think it was papered with gold leaf. Gigantic walls fifty feet high were built to protect it. There were temples, storehouses, dwellings, workshops, and gorgeous gardens.

But the Chimus were finally conquered by another even more civilized tribe of Indians, the Incas (ing'kās). The Incas conquered this city by cutting the water supply, thus forcing the defenders to surrender or die of thirst.

Why have the Incas been called the most civilized of the South American Indians? The Incas ruled a vast territory in South America extending from the site of Quito, Ecuador, through Peru and Bolivia and far south into what is

now Argentina and Chile. All over this vast area there are ruins of Inca roads, buildings, baths, walls, and terraced fields. Señor Palma says that when the Pan American Highway through Peru is finished, the ruins of forty Inca cities

will lie on the route of this highway.

When we ask him how the Incas could rule such a great empire, he tells us the story of Chincha, the Indian boy, and how the Incas conquered his tribe and ruled his land.



Chincha watches as the invaders enter the village.

THE STORY OF CHINCHA AND THE INCAS

Chincha, the Indian boy, lay trembling beside his llama in the field of withered maize. From the hillside he could look down into the village below. Already the soldiers of the mighty Inca were marching into the village. The women and children were hiding in their homes. But the men stood beside the road with downcast eyes.

"Oh," thought Chincha, "that such woes should visit my land!"

For six months his people had resisted the power of the Inca. For six months they had fought off the fierce attacks of the soldiers from the north. But all to no avail.

The soldiers of the Inca had finally defeated his people by changing the cur-

rent of the stream that brought the village the water of life. Where once a rushing torrent had flowed into the irrigation ditches, now only a trickle came through—barely enough for drinking.

The potato plants had withered and died. The maize had shriveled up before bringing forth ears. The grain crop had failed. Only the llamas had found enough to eat.

But now most of the llamas of his village were gone. One by one they had been slaughtered to provide meat. Only Puno (pōō'nō), Chincha's black llama, remained. Chincha would rather starve than eat him.

As Chincha watched from the hillside, he saw the village chief bow low in sub-

mission to the captain of the Inca band. Then the old chief was led off along the road to the north.

After a few hours the village life seemed to go on as usual. A few warriors were stationed in the village, but the main body was camped outside. Chinchá left the cornfield and picked his way down the trail to the village below. Behind him stepped the faithful Puno.

In the next few days Chinchá was to see great changes made in the village. An overseer, or subchief, was put in charge of each ten families. Over each ten subchiefs was a head chief, and so on up, until at the very top was the Saca (sä'kä) Inca, the divine ruler of all.

Inspectors came to examine the irrigation system. They said it was very bad indeed; and before long engineers arrived to bring about the construction of a new system of canals and waterways.

The engineers also added large areas of farm land to the village, constructing a great series of terraces along the hillsides. Little shelves were made in the stone and rock of the hillsides, and fertile soil was carried up to them.

Chinchá watched as other inspectors went over the land, dividing it into three parts. One part was set aside for the Inca and his nobles. Another part was reserved for the priests of the Sun-god. The remaining fields were divided among the people of the village. Each family received a small plot of ground for its own use. But before a family could work its own land, it first must give a certain amount of time to the fields of the Inca and of the priests.

Chinchá found that life was much harder than it had been. How he longed

for the days when he had taken care of the llamas of the village! Many times the old chief had told him that no man did half so well as he with these patient beasts. He knew to a kernel of maize how much each could carry. He knew how to cure their sicknesses, how to shear their shaggy coats of coarse wool. Alas! Only Puno, out of all the llamas of the village, was left to answer his call.

Now he must labor in the fields from dawn to dark. His father, together with other men of the village, had been sent off to the north to work on a mighty fortress. His brother was helping to build a huge granary in which to store surplus food. Should crops fail, there would be plenty of food to carry over to another season.

Then one day still more men of the village were drafted by the chiefs and overseers. The Inca had commanded that a road be built straight through the village and on for hundreds of leagues to the south. Every man would have to work on the road.

Engineers came first to lay out the route. The roadmakers followed. On the plains the work was easy. Only posts were needed to mark the way. But in the mountains the path had to be hewn out of solid rock with stone picks. If the way was steep, steps were cut into the face of the mountain.

Chinchá was especially interested in the great bridge being built across the river gorge. Five huge cables woven from the branches of willow trees were stretched from bank to bank. They were attached at each side to solid piers of stone. Three of the cables, each as thick as a man's body, were covered with mats

and rushes. These served as the floor of the bridge. Two smaller cables made up the hand rails. When the bridge was finished, it supported heavy llama trains with ease, but the way it rolled and swayed chilled Chinchá's heart. It was many days before he dared set foot on it.

Just outside the village the builders had set up a little stone house. In it lived two of the swiftest runners in the village. They had been chosen as messengers of the Inca.

One morning Chinchá saw a runner coming over the mountain. With a last burst of speed the runner raced across the bridge to the way station. His cry could be heard far up the hillside:

"The Saca Inca is coming. Four days hence he will pass through this village!"

Chinchá watched spellbound. Like a flash another runner sped up the road, carrying the message to the next station, whence it would be relayed on to the most distant part of the empire.

The great day finally arrived. By order of the chief it was a holiday for miles around. Even before the sun came over the mountain tops, hundreds of eager watchers lined the road awaiting the passing of the Inca.

At last the brilliant procession appeared high up on the mountain side. As it came closer, Chinchá hugged his llama in his excitement. At last he was to see the ruler of the mighty Inca Empire.

At the head of the procession marched a corps of warriors—their armor rich with jewels sparkling in the sun. Behind them marched the knights, who were the

sons of the Inca nobles. Next came the nobles, their colorful clothing decorated with gold and silver ornaments set with gleaming gems. Then came the priests in ceremonial robes. Behind them rode the Inca himself.

The Inca was carried on a litter borne by twelve slaves. It was trimmed with gold and jewels and was shaded by a fringed canopy of silver cloth. As the procession passed, the onlookers bowed low before the sacred person of the Inca.

As the litter passed before him, Chinchá heard the Inca call out. The whole procession came to a halt, and the nobles gathered around the ruler. To Chinchá's astonishment one of the nobles came over to him and taking his hand led him to the Inca.

"Why is it," began the Inca, "that among all these people you alone have a llama?"

For a moment, Chinchá was too terrified to utter a word.

"Speak up, boy!" a noble whispered harshly in his ear.

Then Chinchá found his tongue. He told how the village had been besieged,



Terrace walls were made of stone. Rich dirt from the valley was placed on the level steps.

Kurt Severin—Black Star



Chincha is told that he is to be a herder at Cusco.

and how all the llamas had been killed for food except Puno, his pet.

Having found his voice, Chincha went on and on without pause. In a torrent of words he related how he had once been herder of the village llamas.

The Inca listened for a moment and then waved his hand for silence. He spoke a few whispered words to the noble at his side. Without even another look at Chincha, the Inca motioned for the procession to proceed.

The noble hurried to Chincha's side and called to a chief standing near by. He said:

"The Inca commands that this boy and his llama be sent tomorrow to the capital, where he shall become a herder of the royal flocks."

For a moment Chincha was stunned. And then he rejoiced. To become a herder once more and to see the wonderful capital of the Inca, this was the proudest day of his life.

"Now," continues our guide, "the story of Chincha should tell you many things about the Incas. It shows, for instance that the Incas were good fighters, that their armies were very powerful. It shows that the Incas were good farmers, good road builders, good *organizers* and *administrators*. It tells us something of their government and their ruler. It helps us understand why the Incas have been called the most civilized Indians of South America."

Where was the capital of the Inca Empire? How interesting it would be



A highland Indian stands with his llamas in front of the remains of one of the mighty fortresses built by the Incas long before the coming of the white man. Some of the stones in the walls are as large as an automobile, and all of them are fitted together without mortar. No one knows how the Incas built such mighty forts without modern machinery.

Courtesy Office of Propaganda, Peru

The bold Pizarro in helmet and armor rides again in Lima, in front of the beautiful Presidential Palace. Indeed, there is much in Lima to remind us of Pizarro and the Spanish influence. There are the proud descendants of Pizarro's followers, the Spanish colonial mansions with their grille bars and patios, the famous cathedral, and even the bullfights.

Branson De Cou



to visit the Inca capital where Chinchu went to tend the royal flocks! We learn that this city still stands with its many reminders of the Inca Empire. It is on Peru's high plateau, and is called Cusco (kōōs'kō).

Señor Palma tells us that in the time of the Incas, Cusco was a city of palaces, beautifully decorated in gold. Terraced gardens resounded with the calls of birds brought from foreign lands. Musicians with flutes and drums played in the streets. Priests of the Sun-god held their ceremonies in the city's great temples. Doctors practiced their art, and merchants sold the products of many lands.

Today Cusco is a busy Indian city. There are many reminders of the ancient Incas. The old stonework in the walls and fortresses is especially interesting. Some of the stones are huge, as big as automobiles.

What happened to the Incas? While Señor Palma has been telling us the story of the Incas, our plane has carried us swiftly to Lima (lē'mä), the capital of

Peru. While in Lima we visit the Plaza de Armas (plä'thä dā är'mäs), where we see the bronze statue of a Spanish warrior astride a prancing bronze horse. "That is the statue of Francisco Pizarro (pī-zär'rō)," Señor Palma tells us. "He never attended school. In fact he was only a swineherd during his boyhood days in Spain. Later he came to America. He was with Balboa when the Pacific was discovered in 1513. He heard the many tales told by the Panama Indians of a rich empire to the south, a land where even pots and pans were said to be made of gold and silver."

No wonder he decided to organize an expedition and discover the land of *El Dorado*. This mythical land of wealth was to draw many another explorer into remote parts of the South American continent. One of these other explorers was Jiménez de Quesada, whom we learned about in Colombia.

Pizarro found a partner in Diego de Almagro (dē-ä'gō dā äl-mä'grō), and soon he was sailing southward along the



Pizarro stands before his men and awaits their decision, either to march with him into the unknown wilderness or to return to Panama. "To come with me means hardship and great danger. Who is brave enough to risk his life in search of the treasures in the country to the south?" One volunteer has already started to cross the line made in the sand by Pizarro's sword. Others are about to follow. Some are uncertain. Will they really find wealth if they go?

Keystone View Co.

west coast of South America. With him were eighty men. Only eighty men to conquer a vast country whose inhabitants numbered in the thousands! How bold Pizarro must have been! And how disappointing the country where he first landed—nothing but steaming jungles, fierce mosquitoes, and fighting Indians! True, some of the Indians wore ornaments of gold, and all of them told of rich cities farther south. But this expedition was not very fruitful, and Pizarro returned to Panama.

A second time he sailed from Panama. Finally, after almost three years of fruitless wanderings, Pizarro received orders from the governor of Panama to return. He refused. Brave and daring, he was not one to give up easily. He called for volunteers. Who would stay with him and try again for fame and fortune? He drew a line in the sand with his sword. Let the weaklings, the chickenhearted, stay on their side of the line and go home. Bah! Let them be farmers. Thirteen men cast their lot with Pizarro.

Later, when friends in Panama sent reinforcements, the tiny band sailed on. Weeks afterward they came upon a wonderful city of temples, fine roads, and delicious foods, a city whose Indian inhabitants used beautiful dishes of silver and gold and wove lovely tapestries. Pizarro was amazed. Here were riches beyond his fondest hopes. But always the Indians told of greater cities, greater riches, still farther to the south.

Pizarro realized that he could not do much with his small band. He therefore returned to Spain, eager to report his discoveries and to get more help. The king was pleased with Pizarro's plan, and sent him back with additional forces.

And so in 1531 Pizarro again set forth from Panama with three ships, nearly two hundred men, and about thirty horses. A great adventure for a man sixty years old to set forth to conquer a new empire!

The Indians again welcomed the white adventurers. And from his camp high in the Andes the emperor of this region,

the Inca Atahualpa (ä'tä·wäl'pä), invited the Spaniards to visit him.

Seven long weeks it took Pizarro's small band to climb the steep Andes to the 14,000-foot mountain pass which led into the valley where the Inca awaited their arrival. But Pizarro's heart sank when he found 40,000 warriors in the Inca camp! How would it be possible to gain control of this land against such a force?

Then one day they visited Atahualpa. The emperor had never seen a horse, but he tried not to appear impressed with the performance one of the Spaniards gave on his Arabian pony.

The next day Atahualpa returned the visit with a majestic assemblage of 5,000 unarmed followers. How haughty and handsome he looked on his canopied litter, decorated with gold and silver, borne on the shoulders of richly costumed slaves.

Not a Spanish soldier was to be seen in the market place. One of the priests who had come with Pizarro went out to welcome the Inca. Explaining to him the teachings of the Christian religion, the priest handed the Inca a Bible and urged him to swear his allegiance to the Roman Pope and to the Spanish King.

"Who dares to command the Inca, the Child of the Sun-god!" cried Atahualpa, throwing the Holy Bible on the ground. It was a signal for attack. Guns roared, swords flashed, horses trampled down the foe. There was little resistance, the Spanish soldiers killing the helpless Indians

right and left. Atahualpa was captured and forced to dine that night with Pizarro.

As a ransom Atahualpa agreed to fill a large room with gold, and another room twice as large with silver. Post-runners hurried to all parts of the kingdom with the command to send precious metals. Within a month tribute was arriving in a golden stream of artistic vases, plates, images, vessels, and jewelry. All were melted by the Spaniards into solid bars of silver and gold. How happy were the Spaniards to gain such fabulous wealth.

But Atahualpa was not set free. He was accused of killing his half brother, and of committing various other crimes. A court of law found him guilty and sentenced him to death.

But the conquest was not yet complete. Almagro marched on toward Cusco, the Inca capital. After some hard fighting,



Atahualpa has paid his ransom, but the Spaniards are not satisfied. They fear that if they free him he may rally his followers. So he is put to death after a trial by Pizarro's courts.

Culver Service



Some of the buildings in Lima date back to early Spanish colonial days. Many, of course, are new and modern. Here American limousines stand before a colonial building, once a viceroy's palace.

Three Lions

For 300 years after Pizarro's death, and even to this day, Lima remained the center of the Spanish life and government in South America. Viceroy's rode down the streets in gilded coaches drawn by six white horses with silver harnesses. Spanish noblemen imported clothes from old Spain for their ladies and gave elegant balls for the rich and powerful.

But Lima was not only the center of Spanish society and government in the New World. In our travels through the city we see the shaded patios of San Marcos University, the oldest university in the Western Hemisphere. For centuries it helped make Lima the educational center of the New World.

We visit, too, the huge cathedral and are reminded that Lima was the center of the Catholic Church in South America during colonial times.

Lima is an important city today. We take a short walk down a busy street where the city's finest shops are located. Smartly dressed men and women stroll past. Automobiles and taxis dash by. We could easily imagine that we were in one of the larger cities of the United States.

We buy a newspaper and notice that we might, if we chose, see a bullfight, a boxing match, a horse race, a cockfight, or a soccer game. Or we might play tennis or golf, go swimming or to the theater. At the theater we could see the latest feature straight from Hollywood.

On the coast about seven or eight miles from Lima is Callao (käl-yä'ö),

the city was captured. The conquest of Peru was complete. In two years a small army of 200 men had conquered an empire of 15,000,000 people.

Pizarro took over the government. Expeditions were sent into the regions now known as Bolivia and Chile to bring them under the Spanish yoke. The land of the Incas became another province of Spain.

Pizarro needed a capital from which to rule his rich land. He chose a spot in a cool, fertile river valley only eight miles from the sea and there built his capital, the very city we are now visiting.

Why did Lima become the most important city in South America? Pizarro did not live long to enjoy his new city. He and Almagro quarreled. The latter was defeated and executed. Later Almagro's friends killed Pizarro. Then the King sent over a viceroy to rule this land.



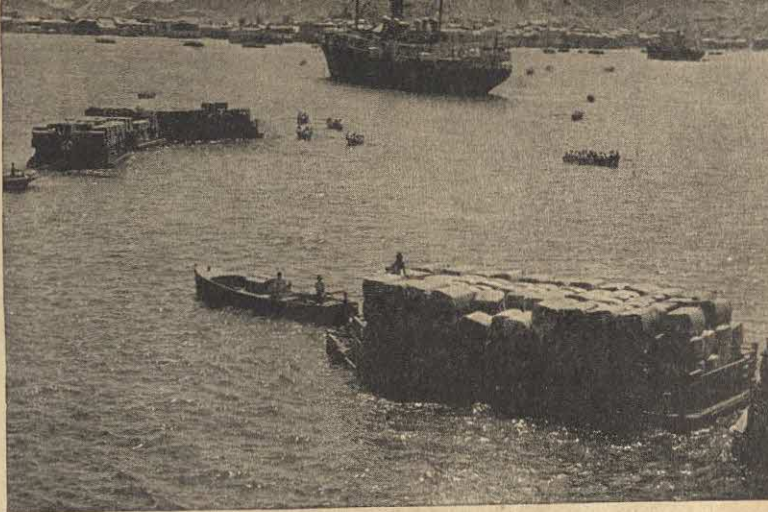
Courtesy Grace Line

SAN SEBASTIAN CHURCH, CUSCO, PERU

One of the oldest cities in South America, Cusco was the capital of the far-flung Inca Empire conquered by Pizarro. Ruins of the ancient city may still be seen in Cusco, including the palace of the Incas and the huge Temple of the Sun, which stands almost in the heart of the city. After conquering the Incas the Spanish built magnificent churches everywhere. Among the most impressive sights to be seen by the visitor to South America is the great number of churches, most of which were erected in colonial times.

There are few good harbors along the west coast of South America. As a result, most of the ships stand out in open roadsteads and are loaded and unloaded from barges. Here bales of cotton, Peru's most important agricultural crop, are being towed to the ships for loading.

Keystone View Co.



Peru's greatest port. It has one of the few good harbors on the whole Pacific side of South America. If it had not been for Callao's harbor, we can be sure that Lima would not have been such an important city in colonial times. Nor would Lima be such an important city today. Why is this so?

What kind of government does Peru have? Señor Palma tells us that during the days of the Spanish rule there was revolt after revolt against the hardships heaped upon both Indians and Creoles. These revolts finally resulted in the great struggle for independence. We remember how San Martín and Bolívar joined forces and helped Peru to win her independence in that struggle. Today Peru is a republic, and Lima is the capital. Here

the Peruvian president lives, and Peru's congress meets.

What are some of the important products of Peru's coastal plain? The map shows us that the coastal plain runs the 1,400 miles of Peru's length. It is not more than twenty-five to forty miles wide. Because of the Humboldt Current the region is quite dry, and frequently the air is very cool.

Fortunately some rivers flow down from the Andes, across the coastal plain and into the sea. Wherever there is a river, crops can be raised by irrigation.

The most important crop is cotton. The long staple of Peruvian cotton brings a good price in the world market. It is grown by many small farmers and provides work for 100,000 people. Though

From the sandy wastes of the coastal plain comes Peru's most valuable product, petroleum. Most of the Peruvian oil is exported. Water used in these oil workers' camps must be carried by pipe line from the far-away Andes.

James Sawdors



some of the cotton is manufactured into textiles in Peru, most of it is shipped to Europe and Asia. We are told that the yield per acre is even higher than in the United States, and that more acreage is being planted each year.

Sugar is the next largest agricultural export. There are many large plantations, some of which are owned by foreigners. The crop is usually planted so that the sugar mills can be kept grinding all the time. Many of the workers on the sugar haciendas are Indians who come down from the mountains for part of the season. But when it is time to plant their own crops on their own tiny fields, they hurry home. Most of them are so poor that they must walk the hundreds of miles from the sugar fields to their homes.

Rice, tobacco, grapes, vegetables, and fruits of many varieties are raised in the irrigated fields. These products are grown chiefly for the home market. The most important product of this dry, barren land is oil. We remember seeing black threads running down to the beach while we were flying over the coast in northern Peru. These were pipe lines. The value of Peru's oil exports exceeds the total of all her other mining products.

A steel highway into the clouds. We decide to visit one of the famous Cerro de Pasco (sēr'rō dā päs'kō) copper mines up in the highlands of Peru.

While we wait at the railway station, Señor Palma tells us that we shall make the trip on the highest standard-gauge railroad in the world. It began as the wild dream of an American contractor and promoter named Henry Meiggs.

"Anywhere the llama goes, I can take a train," Meiggs told the Peruvian of-

ficials. When they said he could never suspend bridges over steep-sided gorges, he said he would hang them on balloons! And so he built this famous line over the Andes.

Our train roars into the station, and we climb aboard. From the moment we leave Lima we begin to climb slowly but steadily. Here and there we pass ancient ruins of Inca temples or dry terraced hill-sides that once were green with maize.

Then the road gets steeper. Back and forth we switch and zigzag up sheer rock walls. The increasing cold makes us put on our sweaters. At Surco (sōōr'kō) the sign reads, "Elevation 6,600 feet." Dull, drab-looking Indians wrapped in black ponchos are selling large bouquets of violets and mountain flowers beside the train.

Through tunnels and over bridges that appear to hang suspended in air, we climb along to breath-taking heights. Mountain sides that have been gray or dull brown are beginning to show brilliant colors.

THE STORY OF PERU TOLD BY MAPS

PRODUCTS. What products of Peru are grown along the coastal plain? This is a very dry region. How is it possible to raise these products here? What is Peru's most valuable export? In what region is it obtained? What product of Peru is most vital in wartime? In what region is it found? When the white man came to Peru, he found the Indians eating potatoes. The white man had never seen potatoes before. Why do some people now call potatoes "Irish potatoes"?

REGIONS. Why do most of the people of Peru live in the highlands? What prevents more people from living in the eastern lowlands, or montaña? Why do few people live in the coastal lowland?

SIZE. Use the tables in the back of the book to compare the area and population of Peru and the United States. Which country has more inhabitants per square mile?

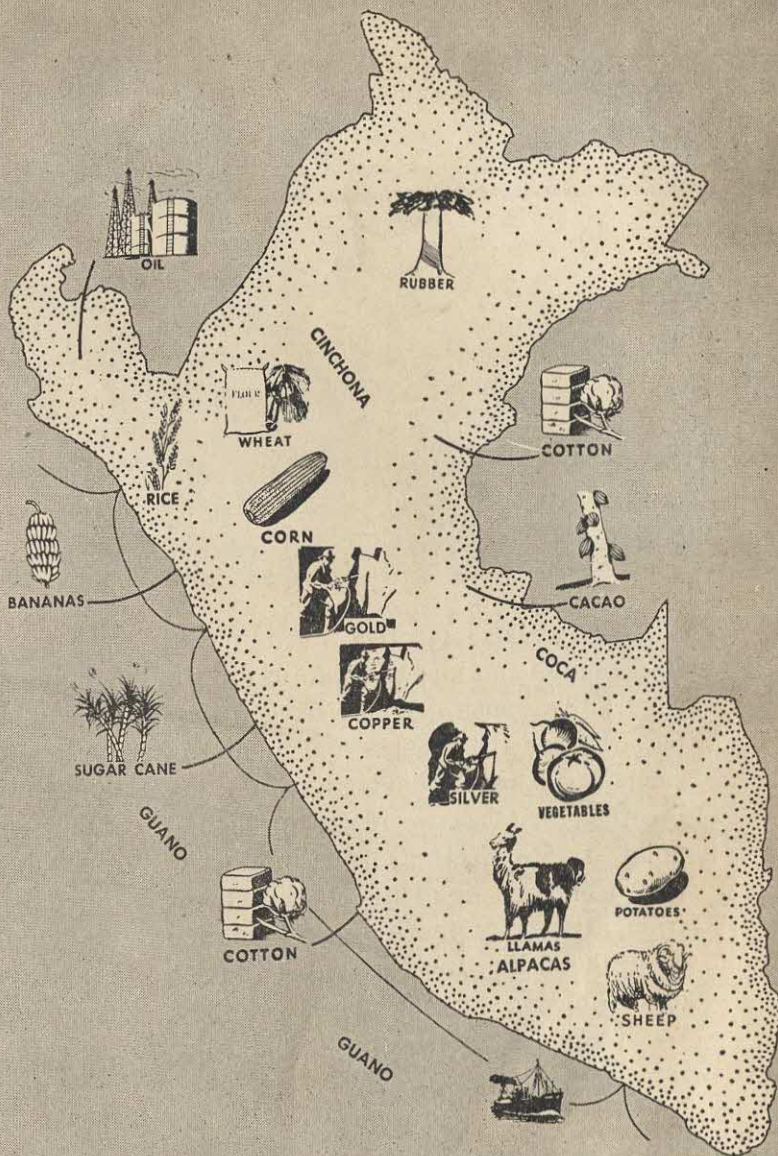
PERU

EXPORTS

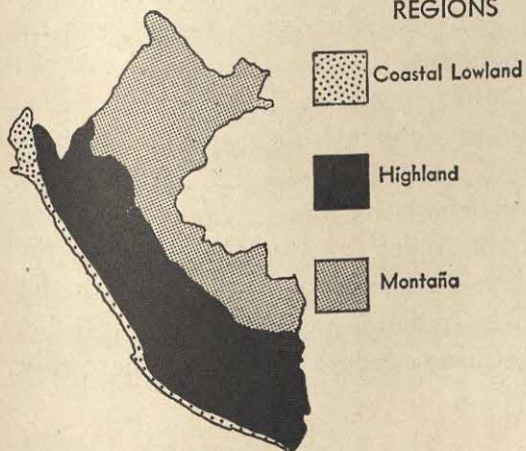
Petroleum
Cotton
Copper
Sugar
Gold
Wool
Vanadium

IMPORTS

Machinery and
vehicles
Foodstuffs
Textiles
Iron and steel
goods
Chemicals



REGIONS





If it were not that the world needs copper, few white men would live in the high Andes. The weather is disagreeable, the land barren, and the high altitude makes work difficult. Most of the machinery for these mines comes from the United States or Europe.

Underwood-Stratton

A sign says 11,430 feet, but our twin lines of steel continue to wind toward the clouds. Trainmen carrying oxygen bags pass through the coaches and inquire of each of us if we are having any difficulty breathing. At last we reach the highest point, 15,665 feet. Oxygen tanks are bolted on the side of the coach and the train attendants move briskly up and down the aisles. But the slightest action of walking or standing makes us giddy. We have mountain sickness. It is called *soroche* (sō·rō'chā), and people who have it feel as if the world were coming to an end!

Why is mining an important industry of the Peruvian highlands? Presently we shoot through a long tunnel out on the high Andean plateau. The country is greener and, in spite of the high altitude, appears to be less desolate than the Pacific slope. The rivers of this plateau drain eastward toward the Amazon.

At last we see the smoke from the smelters; then the large, gray, sandy hills formed by the waste from the mines. Before long we are looking at the brown

slashes in the sides of the surrounding mountains where the copper-bearing ore is being chopped out to feed the hungry smelters. This is one of the world's great copper mines. It is owned by an American mining company. Most of the copper from this mine is sent to Europe or the United States.

When the white man first came to Peru, he wanted gold and silver more than anything else. Thousands of Indians were taken from their fields and sent into the mines. There they died of overwork or from terrible epidemics of measles and smallpox. Within a few years one third of the Indians of Peru had disappeared. But, despite this, millions of dollars worth of gold and silver were taken from the mountains.

Mining is still an important occupation in the highlands, although, as we have seen, gold is no longer the most valuable product of the mines. Copper is "King of the Andes" today. Conditions in the mines are much better now, but the lot of the Indian is not a happy one. His life is still a ceaseless struggle for bare exist-

Up in the highlands, men do many jobs that would be done by animals or machines elsewhere. There are two reasons: man power is cheaper, and a man can go where an animal or machine cannot. These Indians carry their loads for four or five minutes, then rest the same length of time. The Indian with the tuba entertains them as they work.

James Sawders



tence—for a little food, for a few clothes, for a rough hut in which to rest after long hours of toil.

How has the geography of the highlands influenced the life of the people? We cannot imagine anyone being able to work at this high altitude. A few steps leaves us breathless. Señor Palma tells us to notice the Indians. We are amazed at their large chests. Years of living at this high altitude has given these people a huge lung capacity, and this makes it possible for them to work hard at high altitudes where the air is too thin for ordinary people to survive at such occupations.

In Lima when we asked the citizens where most of the people of Peru live, they said “in the highlands.” But when we ask the same question here at Cerro de Pasco, the answer is “in the valleys.” Strangely enough both answers are correct.

Examine the regions map on page 155. Notice the highland region especially. Now very few people live on the rolling plain of the highlands. It is much too

cold. The fierce winds never stop blowing. There are almost no trees. Little will grow except coarse grass and a few hardy shrubs. Most of the Indians who live on these cold barren plains are shepherds. The others work in mines like those here at Cerro de Pasco.

Now notice that the highland is cut here and there by valleys and basins. It is down in these highland valleys that over two thirds of the Peruvians live. Here the land is more fertile. Here the people are protected from the cold winds of the plateau. Here on the valley floors and terraced hillsides they raise their crops.

Not far from Cerro de Pasco we visit a valley that is much like other highland valleys of the Andes. One poor road winds down from the plateau. Here and there we see where the road has been washed out in the past, and we wonder how products of the valley can be shipped outside and how manufactured goods can be brought in.

“That is one of the big problems of the mountain countries,” answers our guide.



This relief map of Central Peru's rugged surface shows why transportation is so difficult. But the airplane has helped to conquer the mountains. Not long ago some much-needed machinery was delivered by air in two hours to a mine high in the Andes. Such a trip would take eighteen days by railway, highway, and river boat.

Courtesy U.S. Geological Survey and Consolidated Vultee Aircraft

"The Andes range has many little valleys where small groups of Indians live. It often requires days or weeks of weary travel for them to reach their neighbors.

"A few years ago a planeload of census takers made a forced landing in one of these valleys. To their surprise they found a thriving little community which had been started over thirty years before. No map of Peru indicated its existence.

"Can you understand the problem our government faces? Lima is far away. The Indians know nothing about the outside world; thus they have no interest in government or law. Officials often try to

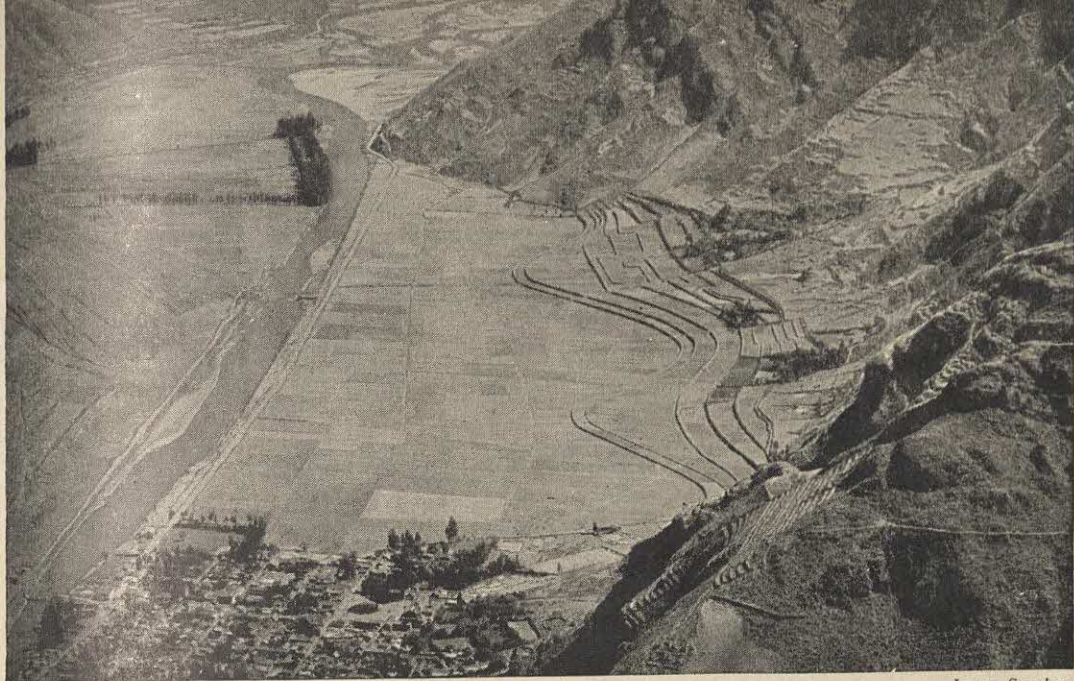
show the Indians better ways of farming, but they prefer the ways of their ancestors. Do you not see how difficult it is for us to build a progressive nation?"

Later we visit a hacienda down in the valley. Most of the fertile valley land belongs to the hacienda. Its workers are mostly Indians who till its fields and, in return, receive a small plot of ground on which to raise their food. The main products of the valley are potatoes and grain. Cattle, hogs, sheep, goats, and perhaps llamas are raised. The hacienda's owner, who is descended from an early Spanish explorer, owns several estates in



This Indian family lives a simple life. Their home on the high plateau is made of stone, and the roof is thatched. The barnyard wall keeps the stock from falling into the canyon near by. Far in the distance rises the snow-clad peak of El Misti.

Mrs. Branson De Cou



James Sawders

Most of the people of the highlands do not live on the cold, wind-swept plateau but have their homes down in the sheltered valleys. The land in fertile valleys such as this one is usually owned by a few rich whites and worked on shares by Indians or mestizos.

Peru, but he does not live on any of them. His home is in Lima, where he is an official in the Peruvian government. Most of the rulers and leaders of Peru are descendants of Spanish explorers and colonists.

Why is Peru's rich *montaña* so sparsely settled? We would have enjoyed a visit to Peru's fertile eastern lowlands. But unfortunately this territory is almost inaccessible except by plane. Señor Palma tells us that a trip from Lima to the Peruvian city of Iquitos (ê·kê'tōs) on the Amazon River normally takes about two weeks of travel by asphalt highway and river boat.

Does this lack of transportation explain why so few settlers have gone into the *montaña*? Would these settlers have to pay more or less for supplies than settlers on the coast? Would they receive more or less for the cacao, sugar, and other tropical products that they raise? Why?

Good-by to Peru. We wish we could linger in the highlands and visit Cusco, the old capital of the Incas. But we have to return to Lima and resume our southward travels. Many things stand out in our minds as we leave Peru—the guano islands and their millions of feathered inhabitants, the barren coastlands with their pipe lines and their irrigated fields of cotton and sugar cane, and the breathtaking Andes with their valuable copper mines.

As we have already noticed in our travels through Latin America, there are differences in each of these countries which divide them up into several distinct regions. So it is with Peru. This country is divided into regions of desert, mountains, and jungle. There is the narrow desert stretching along the seacoast. None of the cotton, sugar, or rice crops could be produced in this region if rivers from the highlands did not furnish water

for irrigation. Only about one fifth of the people of Peru live here, and the region is isolated to a great extent from the near-by highlands by lack of adequate transportation.

The highland region, or *sierra*, as it is called, is made up of several ridges of the Andes. Some of these peaks scale as high as 20,000 feet into the air. Nestled between these ranges are the valleys where most of the people live by tilling the fertile soil or uncovering the vast mineral wealth.

Isolated on the eastern side of the Andes is the third region, the *montaña*, which is part of the Amazon jungle and is larger than the other two regions combined. This tropical jungle of dense forests and heavy rains has a soil that could grow almost anything. Some explorers believe that it will be the "Peru of tomorrow."

We recall, too, the modern city of Lima with its statues and old colonial buildings that preserve the memory of Pizarro, San Martín, and Bolívar.

BOLIVIA—A REPUBLIC IN THE SKY

For some time now our plane has been climbing up from the sea over miles of desolate brown hillsides. Gradually the hills turn into rugged mountains. Then we dodge through a rift in the white-capped peaks and behold a "marvel of marvels." As far as we can see in both directions is the deep blue of Lake Titicaca (*tě'tě·kă'kă*), the highest freshwater lake in the world. Our altimeter reads 12,600 feet.

The brilliant hues of this high altitude charm the eye. The clearness of the atmosphere makes mountains seventy-five miles away appear deceptively close. In the background are the silhouettes of towering peaks and rugged mountains.

Flocks of gulls fill the air with the gleam of their white plumage. Below us is a steamer that looks big enough to be plowing ocean waves. Our steward tells us that the first steamboat to ply this lake was brought over the Andes piece by piece on burro back. It required nine freight trains to carry the materials that went into the boat we see below us now.

Near the southern end of the lake we

notice many islands. Señor Palma points out the island of Titicaca, which the Indians still consider sacred to the sun. On it is the Rock of Manco Capac, a mass of red stone jutting up from the crest of a ridge. According to Inca tradition, Manco Capac and Mama Oclla, children of the Sun, first set foot on earth upon that rock. The Sun-god gave them a golden rod. They were to travel until they came to a spot where the rod would sink into the ground at the slightest touch. This would be a sign that the soil was fertile. A temple to the Sun was to be set up there and the brother and sister were to rule the people. The spot thus chosen was Cusco. It became the Inca capital.

Along the shores of the lake we see boats with sails made of reeds. They are made from the rushes that grow in the icy shallows. We see, too, a dirt road that follows the shore from Bolivia to Peru. It is a part of the Pan American Highway.

Who built Tiahuanaco? Soon we notice below us the ancient ruins of the city of Tiahuanaco (*tyă'wă·nă'kō*).

For hundreds of years the Indian fishermen of Lake Titicaca have built and sailed these strange reed boats. The hills and mountains that surround Lake Titicaca are terraced and grow good crops.

Fenno Jacobs—Three Lions

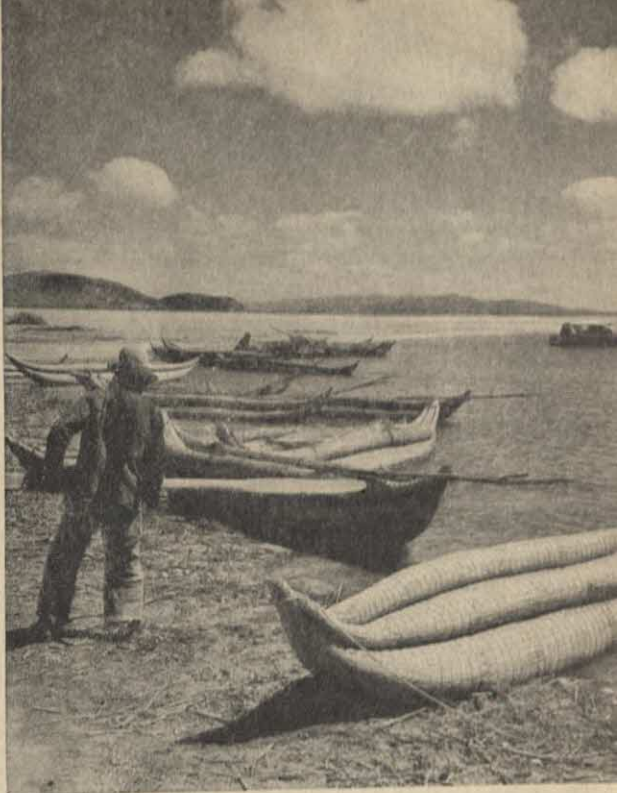
It looks like a clay-model village with here and there a few brown adobe houses. Scattered over the horizon are the ruins of immense stone walls.

Señor Palma says that among the ruins are life-size sculptures of humans and animals. Carved on the stone doorways and arches that still stand are square-shaped heads and ornaments of fish and serpents and condors. These relief carvings would do credit to early Egyptians.

The people who built the city have long since vanished, and the ancient carvings keep their secret tightly locked. Some day, though, our scientists may discover it. Then one more riddle of early life in the Western Hemisphere will have been solved.

Why is **La Paz** (lä päs) the most important city of Bolivia? Stretching southward before us is the *altiplano* (äl'tē-plä'nō), or high plateau, where most of the people of Bolivia live. The altiplano is over 500 miles long and has an average altitude of 12,000 feet. Except for a few green valleys, the plateau seems barren and lifeless. Señor Palma tells us that the cold winds blow so fiercely that sometimes terrible sandstorms sweep across the entire region. No wonder the Indians build their little huts down in the sheltered valleys.

In another twenty-five minutes we fly over the rim of a valley and see a fairy-land city in the bottom, 1,400 feet below. It is La Paz. Tin roofs gleam in the sunshine amidst others of red tile. Many of the houses have sparkling white walls.



On landing, we find that the street from the airport into this city of 300,000 people is fairly level. The sun is bright and warm, but when we pass into the shade of buildings or trees, we button our jackets. This fact and the difficulty of getting our breath tell us that we are at a high altitude. Indeed, we are more than two miles above the sea.

A streetcar jangles by. People go in and out of hotels and office buildings. Many of the offices seem to be the headquarters of mining companies.

We pass the national capitol with its clock tower. Bolivia is a country with two capitals. The official capital of Bolivia is at Sucre (sōō'krâ). But it is in such a remote part of the country that only the Supreme Court meets there. Congress, the President, and most of the government officials do their work here in La Paz. This does not seem queer when



La Paz, like Lima, has many buildings that date back to Spanish colonial times. The city also has, as we can see, some buildings that are very modern.

Fenno Jacobs—Three Lions

tive of the Andes, and several varieties of llamas are raised from Ecuador to the tip of Argentina."

Today there are millions of llamas in Bolivia—more, perhaps, than in any other country in the world. They seem to thrive on the scanty, tough grass which grows on the plateau.

The Indians make use of llamas in many ways. We have already seen how they use them as beasts of burden. All over this part of the Andes, where the rocky trails are too rough and steep for any other animal, the sure-footed llama can carry loads of 100 pounds or more. But it is impossible to overload these creatures. They seem to know to the ounce how much they should carry. If anyone attempts to load on more, the llama promptly goes on a sit-down strike. Not until the extra load has been removed, will it get up again. Of course, the llamas are more than burden carriers. They provide the Indian with milk and meat. As there are few trees to provide firewood, dried llama dung is used for fuel.

Important, too, is the llama's wool. It is woven into a coarse, heavy cloth that provides the covering so necessary for warmth when the sun goes down.

Much finer wool comes from the alpaca and vicuña, which belong to the llama family. But they are not so common in Bolivia. Their silky wool is used for expensive clothing or is exported.

Some people think that without the llama there could have been no Inca

we learn that La Paz is the hub of the nation's air, railway, and highway systems. More than half of the country's imports pass through the customhouse of this city. This includes such goods as wheat, motorcars, trucks, cloth, gasoline, and medicine.

Eighty per cent of all the goods manufactured in Bolivia are made right here in La Paz. Among these are cement and clothing.

Why is the llama important in Bolivia?

A caravan of llamas is picking its way down a steep cobblestone side street. Indians with strange round felt hats and heavy ponchos call softly as they herd their charges into the busy thoroughfare. The llama is a long-necked beast of burden that looks like the camel, though it is smaller and has no hump on its back.

"The llama is the Indian's best friend," says Señor Palma. "This animal is a na-

civilization. The llama gave the Incas food, transportation, leather, clothing, and fuel.

A visit to the market. We follow the llama caravan and find that it is headed toward a steep cobblestone street which serves as a market place. The market is much like those we have seen all over Latin America. Everywhere there are Indians.

Most of the men wear ponchos which have been woven on primitive looms. The poncho is a blanket that can be slipped over the head like a Mexican *serape*. What bright colors the men wear! Orange, red, and black seem to be favorites. In the market the coloring dyes, which come from Europe and the United States, are sold in tiny paper boxes.

The women wear brilliantly colored skirts that flare out like a cone. We are told that every Bolivian Indian woman wears ten or twelve skirts at a time.

The women are the only ones who seem very busy. They chat with their neighbors, argue over prices, take care of babies swung across their backs, and

never stop twirling wool and winding yarn on their homemade spindles. The spinning of yarn and the weaving of cloth are the chief occupations of many Indians in the highlands.

What foods are sold in the market? In one of the market stalls we are amazed to see canned goods from the United States stacked to the ceiling. But, of course, most of the foodstuffs used here have been grown in Bolivia. Some of the cereals and grains have been raised in sheltered valleys of the plateau or on terraced hillsides.

There are also coffee, cacao, sugar cane, beans, corn, rice, and fresh fruits. When we ask where these come from, we are told that they are grown on the eastern slopes of the highlands. Llama and donkey trains carry these products to La Paz.

Of all the products sold in the market, the most interesting are the potatoes. They look different from any we have seen before. Some are pink, some are yellow, some are purple. Others have been alternately frozen and dried until they

The Indian's llama is his most valuable possession. Few animals are so sure-footed in crossing rocky mountain trails with a heavy pack. The llama also supplies the Indian with milk and a very coarse wool which is very useful in the cold, windy highlands.



look and feel like wood. These are called *chuño* (chōō'nyō). *Chuño* is one of the principal foods of the Indians.

Potatoes have been cultivated by the Indians of the Andes for hundreds of years. But before the white man came to the New World he had never seen a potato. A Spanish monk is supposed to have carried the first potato from Peru to Spain not long after Pizarro's conquest of the Incas. Later the potato was introduced into every country of Europe. Indeed it became such an important part of the diet of the people of Ireland that many people call it the "Irish potato." The potato has proved more valuable to the people of the Old World than all the gold brought back by the Spanish.

The story of a mountain of silver. Many tales are told of the discovery of gold and silver in the New World. One of the most interesting is the story of how a simple Indian shepherd found a mountain of silver in southern Bolivia.

"Make haste, señor," cried the Indian, "for I have found a hill that melts and flows like water."

The Spanish captain stood with puzzled face. What could this savage be talking about? A hill that melts! Impossible! And yet . . . perhaps he had better see what manner of nonsense the shepherd talked. He buckled on his sword and followed the Indian across a little valley and up a steep hillside.

"It is here that I am hunting my lost sheep," explained the Indian. "Just as night falls I find the missing one. Then it is too late to return. The winds blow cold, and I shake with chill. I build a fire, a big fire, Señor. Then I sleep. Suddenly it is morning. I awake stiff with cold. The

fire is out. But a strange thing has happened. The ground under the fire has melted and run down the hill. Is it not wonderful that the hill should melt, Señor?"

The Spaniard nodded. "And what is the color of your little river?" he asked. "The color of the sun, perhaps?"

"No, my master," the Indian answered. "It is the color of the moon."

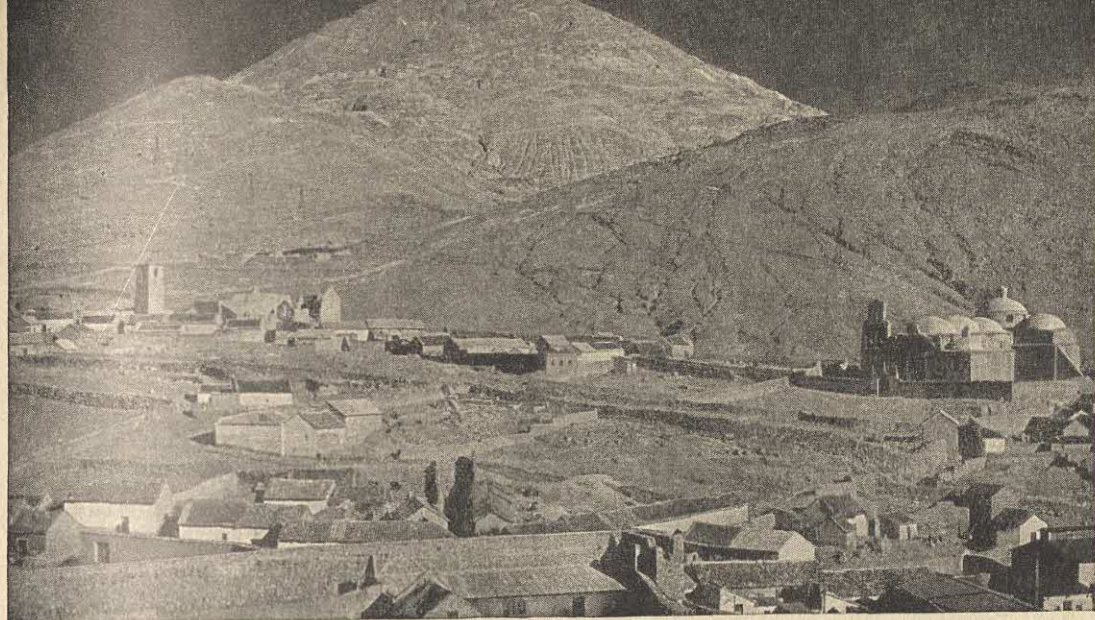
The Spaniard's mind was racing. It was not gold then. Could it be silver? Could this be the riches he had dreamed of since leaving Spain? Now he was almost running up the rough sheep trail. And then he suddenly stopped. There were the ashes of the fire. And from the ashes ran a gleaming streak. Silver! For certain, it was silver!

But the captain gave no sign of his excitement. He bent over the little trickle of shining metal and wrenched it free from the hillside. Then he shrugged his shoulders.

"Who knows what manner of hill this can be? It is interesting, of course, but of no value. Let us return. And you, shepherd, had best forget what you have seen and take better care of your sheep. Be off now."

"Si, Señor," answered the Indian, and the pair started back along the trail.

What was the result of the discovery of silver in southern Bolivia? A few days later the captain and several close friends in the near-by village of Potosí (pō·tō·sē') formed a mining company to dig for the silver. In a few months a "rush" was on. News of Potosí's silver hill spread like wildfire all over the world. Bankrupt Spanish nobles, hardy prospectors, greedy merchants, soldiers of for-



Fenno Jacobs—Three Lions

Across the roofs of Potosí can be seen the famous Hill of Silver. It is said that over \$50,000,000 worth of silver was taken from this hill in a few years time. Today the hill is valuable for its deposits of tin—that part of the ore which the Spanish considered worthless and threw away.

tune, all kinds of people swarmed into Potosí.

And no wonder! In a very short time over \$50,000,000 worth of silver was taken from the hill. Despite the cold of its high altitude and its isolated position, Potosí became for a time Spain's largest colonial city.

The mineowners lived like kings. They imported the finest wines, the best clothes, musical instruments, anything that could be carried over the mountains by muleback or llama. Artisans were brought in from Spain to build fine homes, to paint portraits, and to make Potosí the first city of the New World. At one time it could boast a population of 160,000.

For two centuries the silver hill discovered by the poor Indian shepherd continued to be the richest mine in all the world. But gradually the precious ore gave out, and Potosí became less and less important. There finally came a time

when only a few hundred people remained among the ruins of the once great city. Potosí was a ghost town.

The fate that came to Potosí also came to hundreds of smaller towns and mining camps in Bolivia. When the supply of silver ore became exhausted, the Spanish departed, and the Indians, who had been enslaved to work the mines, returned to the valleys of the *altiplano* to raise their crops.

But, strangely enough, after almost 200 years Potosí and the other mining towns of Bolivia came to life again.

Why are the mines of Bolivia more important today than ever? Mixed with the silver found at Potosí and elsewhere in Bolivia was an ore which the Spaniards considered a nuisance and always threw away. It was tin.

Although we sometimes attach little value to things made of tin, it has always been a valuable metal. Prehistoric man mixed tin with copper to form bronze.



These Indians work for a few cents a day sorting ore in one of the tin mines. All over the highlands the Indians successfully compete with machines in work of almost every kind.

Fenno Jacobs—Three Lions

It is expensive to mine tin in Bolivia. The mines are 12,000 to 20,000 feet above sea level. The tin ore has to go to the Pacific coast by railroad, and thence by boat to smelters in England or the United States. Yet tin continues to make up more than three fourths of the total value of Bolivia's exports.

What are some of Bolivia's problems? Señor Palma tells us that Bolivia has many problems that must be solved before the country can become a prosperous democracy.

Transportation is one of these problems. Bolivia, as we know, is an inland country. In miles it is not far from the Pacific Ocean. But the Andes present such a mighty obstacle to the building and operation of railroads that only two lines run from the highlands to the coast. And the cost of transporting goods from the highlands to the sea is enormous. For instance, a ton of tin ore costs about \$7.00 to produce in the Bolivian highlands. The cost of shipping this ore to the seacoast is about \$45.00. The cost of shipping it from the seacoast to Europe is only about \$8.00. From this it is easy to see that if transportation were cheaper the people of Bolivia would profit much more from their mines.

Though the cost of shipping goods from the highlands is great, the transportation problems of Bolivia's lowland region to the east is even greater. No railroads enter these lowlands, though they form more than half the area of Bolivia. Therefore the little rubber and the

The Liberty Bell in Philadelphia is made of metal that is four parts copper and one part tin. When it was discovered that food could be preserved in tin, tin cans became very useful. A tin can is made of a cheaper metal, such as steel, that has been coated with a thin layer of tin. With the coming of automobiles and airplanes, tin is much used in bearings in engines and motors.

When the world began to demand more and more tin, miners remembered the tin ores thrown away by the Spanish. Soon Potosí's population had grown to 36,000. Other mines opened up. Today Bolivia's largest tin mines are at Potosí, Oruro (ô-roô'rô), and La Paz.

Bolivia is now one of the important tin-mining countries of the world. The largest supply comes from Malaya. The East Indies and Bolivia follow next in order, each producing about one-sixth of the world's output.

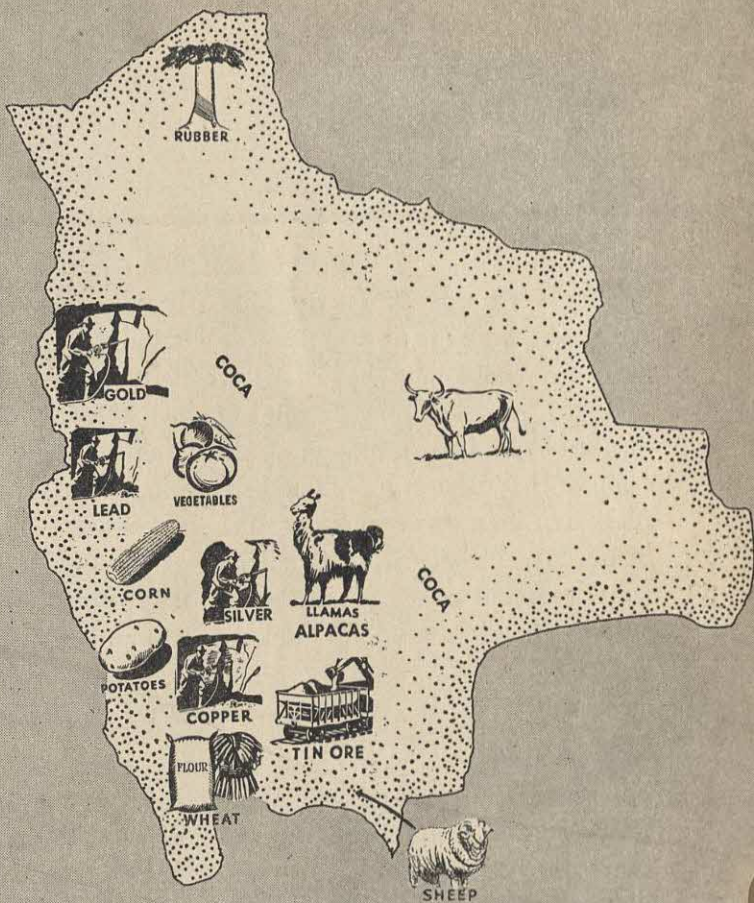
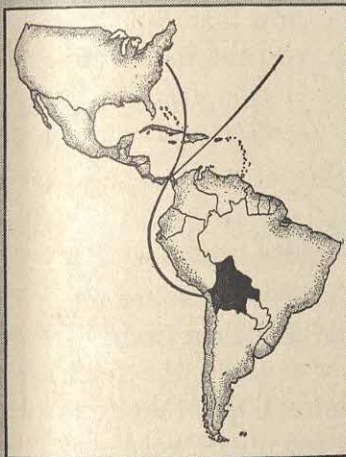
BOLIVIA

EXPORTS

Tin
Silver
Lead
Tungsten
Gold
Antimony
Copper
Zinc
Rubber

IMPORTS

**Machinery
Explosives
Foodstuffs
Petroleum
Vehicles
Textiles
Chemicals**



THE STORY OF BOLIVIA TOLD BY MAPS

PRODUCTS. Bolivia's most valuable minerals are found high up on the plateau. The production of tin and antimony is limited by the high cost of transportation to the sea.

REGIONS. What three regions are found in Bolivia? What are the important agricultural products raised in the valleys of the highland? Are these mostly tropical products? Bolivia's great lowland to the east is sparsely settled. There is rainfall almost every day. It is heaviest from November to March, causing rises of as much as 15 feet in the rivers. The entire area is a dense, tangled jungle.

SIZE. Bolivia is about one-seventh the size of the United States, but the population of Bolivia is only about one-fortieth that of the United States.



REGIONS



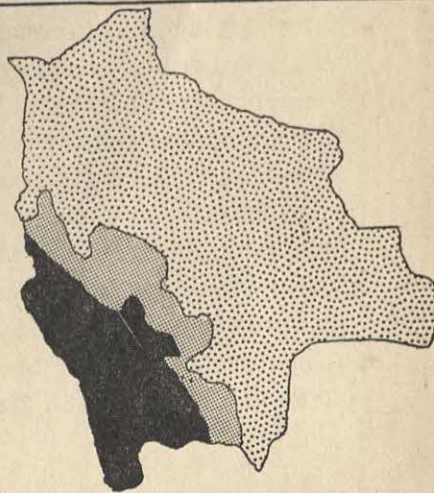
Highland (Altiplano)



Eastern slopes



Lowland



few other products grown there must travel thousands of miles down the rivers to the Atlantic coast on the way to market.

Another of Bolivia's problems is to get enough workers. Bolivia has fought disastrous wars with Paraguay and Chile. So many of her workers were killed that even today there is a shortage of labor.

A third problem is the lack of sufficient fuel with which to operate mines and industries. Bolivian mines now use llama dung or the wood of a highland shrub for fuel. The cost of importing coal is high. Some day oil fields, which geologists say will be found east of the Andes, may answer Bolivia's need for fuel.

But the Indians are Bolivia's greatest problem. Over half of the people are pure Indians and another third are mestizos. Only a few of the Indians can read or write. Most of them live in isolated valleys where the mine boss or the hacienda owner is their only contact with the outside world. They do not vote or take any part in the affairs of the country. They know little about their government, and they do not seem to care to know more.

We can be sure that Bolivia will not change much until the Indians of Bolivia take a share in the responsibilities of making their country a modern progressive democracy.

CHILE—LAND OF ENCHANTMENT

Leaving La Paz, we fly southwestward across the Andes and ninety minutes later arrive in the clean little city of Arica (ä·rē'kä). Here we change planes and continue southward over the Atacama (ä'tä·kä'mä) Desert. On our right the dark Pacific rolls off to the curve of the world. There are no signs of life on the desert below us. Dry river beds are flanked by naked ridges. In the east the sky line is bordered with the snow-crowned Andes.

What did the first white man find in Chile? The first European to explore this desert region was Diego de Almagro. We remember that he and Pizarro were partners in the conquest of Peru. After the conquest, Almagro spent his fortune in equipping the expedition that was to make him governor over the land to the south. Hundreds of Spaniards and thousands of Indians followed him from Cusco along the Inca trail that led down the slopes of the Andes and across the burn-

ing desert. The men suffered terribly, first from cold and then from thirst.

When they reached the fertile river valleys of central Chile, they found fierce Indians who resented the coming of the white man. But they found no gold. The Spaniards could think only of their parched tongues and empty stomachs as they trudged back across the desert to Peru. Little did they dream of the mineral wealth that some day would be taken from these treeless, grassless plains.

What are the three parts of Chile? We look at our maps and see that more than a third of Chile is desert country. "In the northern part of Chile," says Señor Palma, "rain never falls." In central Chile, from about 30 degrees south latitude to 40 degrees, heavy winter rains provide river water for irrigation in the summer. Most of Chile's 5,000,000 people live in the thriving cities and on the prosperous farms of this middle section. It is called "the garden of Chile." In



Courtesy Pan American Airways System

Northern Chile is a seared, desolate land. Near the coast is the famed Atacama Desert, where no rain falls for years on end. Farther inland the foothills of the Andes are brown and desolate, with no sign of life—not even a tree or shrub—for hundreds of miles. Far to the east rise the snow-covered peaks of the Andes, a barrier crossed by man in but a few places.

southern Chile the people pray for sunshine. There rain falls all the year round. This region has beautiful lakes and mountains and dense forests, but few inhabitants.

Our maps show us that Chile is the only country in South America that lies almost wholly west of the Andes. For that reason it is a narrow country, long and narrow. Where is its greatest width? What is its narrowest width? Which is the greater distance, from Arica to Cape Horn or from New York to San Francisco?

Why do people live in Chile's desert? In the desert country below us, we see hundreds of mining camps. This is the famous nitrate region of Chile. The nitrate rock or *caliche* (kā·lē'chā), as it is called, may be found from fifteen to one hundred miles back from the ocean.

We are surprised to see green trees and parks in some of the mining towns. The water that irrigates these parks is piped from the snow-capped mountains many miles away. All the food, fuel, and build-

ing materials that the people use have to be hauled in by railroad or truck. If the desert were not so rich in nitrates and if the highlands were not so rich in copper, iron, gold, and other minerals, there would be no towns in the coastal desert for a distance of over 500 miles. Only a few Indians would live in the oases, which are few and far between. But, for years, thousands of workers have lived in this region. Indeed the largest source of income for the Chilean government was taxation on nitrates and copper.

How did Chile acquire possession of the Atacama Desert? Nitrates were so important that one of the bloodiest wars in South American history was fought over this desert land. It is called the *War of the Pacific*. Chile and Bolivia and Peru each owned a part of the nitrate desert and coast. A dispute over the desert boundary and a nitrate company led to war between Chile and Bolivia. Peru went to Bolivia's aid. But Chile defeated both Bolivia and Peru and took possession of all the nitrate country.



Chile's great nitrate beds are located on the barren northern wastelands. This picture shows the buildings and works of a nitrate plant. The circular fans are dumps of waste material left after the nitrates have been removed from the rock. Look at the picture below and tell what caused the pockmarks seen in the picture.

Courtesy Pan American Airways System

The war started in 1879, and the following year the United States tried to stop the war by offering to mediate the dispute. Representatives of the warring countries met on board a United States cruiser but could not reach any agreement on the terms of peace. When the war finally ended in 1883, Chile and Peru could not decide who should own Tacna and Arica. The President of the United States was helpful in settling the matter, but not until 1929. Tacna finally went to Peru and Arica to Chile.

With all the Atacama Desert in its possession, Chile became the largest producer of nitrates in the world and the second largest producer of copper.

How are nitrates used? Looking down at a cloud of dust rolling over the blistered earth, we realize how hot and dirty it must be to work in a *caliche* plant. Sometimes the *caliche* lies on the surface of the ground, but usually it is from three to twenty feet underground.

Holes are bored into the *caliche* and loaded with dynamite. The explosion throws out the nitrate rock. This is loaded on to wagons, trucks, or trains and taken to the nitrate plant. There the nitrate in its rocky form is dissolved in water. The most modern machinery is used to change it into a pure, powdery, saltlike chemical. It is then put in bags and shipped to the United States or Europe or Asia.

"How queer it is," says Señor Palma, "that this desert country produces a chemical substance that makes plants grow vigorously in other lands. Of course, if there had been any rain here, there



This worker is pouring black powder into a small hole in the surface of the desert in preparation for blasting loose the nitrate rock. Notice the electric engine in the background.

Courtesy Chilean Nitrate Educational Bureau

We can get some idea of the enormous size of Chuquicamata if we locate the strings of freight cars on the terraces. This open-pit mine reminds one of the open-pit iron-ore mines in Minnesota.

Courtesy Chile Exploration Company



would be no nitrates. For the rains would have dissolved the nitrate and washed it away. As it is, farmers in many countries secure the best fertilizer known to man from Chile. Nitrate is one of the chief food ingredients of all plant life. Nitrate is also used in the manufacture of nitroglycerine and other explosives."

The chief by-product of nitrates is *iodine*, sometimes called "purple gold." Nine tenths of the world's supply of iodine is produced in Chile.

Today Chile's nitrate mines are not so profitable as they once were. Great quantities of nitrates are shipped out to be used as fertilizer, but the price is low. The price dropped when scientists learned how to make nitrates from nitrogen in air.

How important is Chile's copper? The desert coastal range seems to drop into the sea as we swing out over the purple Pacific. On the shore we see a little town clinging to the narrow coast. Two railroad tracks and two highways creep up the steep ascent behind the town.

One hundred miles due east is the larg-

est open-face copper mine in the world. It is called Chuquicamata (chōō'kē·kāmä'tä). The copper deposit is 8,000 feet long, 600 feet wide, and 2,000 feet deep. Huge steam shovels dig out the ore and load it in dump cars. A network of railroads carries the ore to the huge buildings where the ore is refined.

One has to get permission from the North American company that owns the mine to visit the town where the foreign engineers and the Chilean workers live. It is an attractive place, with good schools, hospitals, recreation fields, a theater, and a pleasant guesthouse. It is 10,000 feet above sea level.

The three largest copper mines in Chile are owned by United States corporations. We remember that many copper mines in Peru are also owned by United States corporations. Chile exports more copper than any other country in the world. It is her most valuable export. Only the United States produces a larger quantity.

What other minerals does Chile have? We are near the end of 700 miles of desert coastland. We see an electric freight



Courtesy Chilean State Railways

Probably the best and most efficient harbor on the west coast of South America is at Valparaíso. At most west coast ports, the ships stand out in an open roadstead and must be loaded and unloaded from barges and lighters. At Valparaíso the deep-water ships come right to the docks.

train loaded with iron ore rolling down to a little port. The heavy train generates enough electric power on its trip down the mountain to pull the empty cars back to the mine. Chile is the leading exporter of iron ore in South America. The high-grade ore is shipped to the United States.

Chile also is South America's leading producer of coal. Señor Palma tells us about his visit to the coal mines near the city of Concepción. Here the veins of coal extend out under the ocean in every direction. The mine is entered through an elevator shaft a quarter of a mile deep. At the bottom is an electrified, subterranean city. Fast electric streetcars carry visitors through miles of lighted tunnels. Freight cars loaded with coal whizz by. One passes a bookkeeper's office, blacksmith shops, and even a restaurant. The rock above these tunnels is so solid that one finds it hard to believe that above the mine roll the mighty waters of the Pacific. A Chilean family has owned and operated this mine for over a century.

Gold, petroleum, and salt are also produced in Chile. Nature was indeed generous to Chile in giving her great mineral wealth and abundant soil deposits.

Why is Valparaíso Chile's largest port? We pass gradually from complete desert to a region less arid. Here and there a valley with vegetation looks like a great green snake sliding down to the sea. Now we are over the red roofs and beautiful flower gardens of Viña del Mar (vē'nyä dēl mār'), the famed beach resort of Chile's millionaires. Our plane makes a turn, well outside the naval area over which commercial planes are not allowed to fly, and then comes down in Valparaíso (vāl'pā·rī'zō).

This is the finest, busiest harbor on the west coast of South America. Residences and parks spread out over twenty hills around the narrow coastal plain that circles the harbor. The main business section is built on land reclaimed from the sea.

In this city, the second largest in Chile, are many factories and mills, producing paints, textiles, flour, sugar, crackers,

cakes, candies, enameled ware, shoes, cosmetics, chemicals, beverages, canned goods, furniture, cement, and iron goods. Most of the goods manufactured here are used in Chile. Some of them are expensive, because a protective tariff keeps cheaper foreign goods of the same kind from being imported.

The climate of Valparaiso is delightful. The fresh ocean breezes and the Humboldt Current temper the summer heat. And the warm sunshine relieves the cold of the short winter. Valparaiso is literally a "valley of paradise," as its name means in Spanish.

It is the seaport for Santiago (sän'të-ä'gō), Chile's beautiful capital. Through it passes most of the trade and commerce of the prosperous Central Valley.

For what are the islands west of Valparaiso noted? We enter a restaurant built on a cliff overlooking the sea. As its specialty is seafood, we order lobster. The lobster is large and tender, and has a very fine flavor. It came from Robinson Crusoe's Island, 400 miles off the coast of Valparaiso. Two hundred years ago the island was used by pirates as a hide-out. One of the pirate ships left a Scottish sailor by the name of Alexander Selkirk marooned on one of the Juan Fernández (hwän' fēr·nän'däth) Islands. Selkirk lived there alone for four years. When a ship picked him up at last, he was wearing clothing made of sealskin. A long beard and flowing hair covered his bronze, weather-beaten face.

The experiences of Selkirk on the island were used by Daniel Defoe in his book *Robinson Crusoe*. Chileans call the island where Selkirk lived "Robinson Crusoe's Island."

Today, sight-seers go there to look in the cave where Selkirk lived. Scientists go there to study flowers and rocks. Some of them think that the Juan Fernández Islands are the last remnants of a vast continent which sank beneath the ocean many centuries ago. Fishermen know that some of the best lobsters in the south Pacific are found near Robinson Crusoe's Island.

Leaving the restaurant, we soon find ourselves before a monument honoring William Wheelwright. This enterprising citizen of the United States came to Chile in 1851. He built the first railway in Chile and helped to develop the nitrate and coal fields. He promoted a steamship company, gas lighting, city water works, and the first telegraph line in Chile.

During the gold rush to California in 1849 many ships stopped at Valparaiso

Except for the carriages, this scene just outside of Valparaiso reminds us of scenes in our own California. What do the palms tell us of the climate? Does this church look like other churches we have seen in South America?

De Palma—Black Star





Underwood-Stratton

Chile's Central Valley is an important wheat-raising region. It is also a land where we find the old and new side by side. We see smart automobiles and rickety carts, faithful oxen and modern threshers. Most of the automobiles and farm machinery used in Chile come from the United States.

on their way northward from Cape Horn. From Valparaiso ships carried flour, ground from Chile's wheat, to feed the hungry miners in California. Chile and the United States have had friendly and profitable trade relations with each other for many years.

Why is the Central Valley the heart of Chile? Too soon our plane is winging its way above the hills of Valparaiso, over the coastal range, and into the Central Valley of Chile. We are surprised to learn that the Central Valley is not a river valley. It runs north and south and is made up of the fertile plains between the Andes and the parallel coastal range. It is less than fifty miles wide, but is about 700 miles long.

Most of Chile's farm lands are located in this long, narrow valley. The climate is like that of sunny California. It is mild in winter and temperate in summer. The area is watered by numerous streams flowing from east to west.

Wheat grows abundantly on the huge country estates. Señor Palma says there are 2,000,000 acres planted in wheat an-

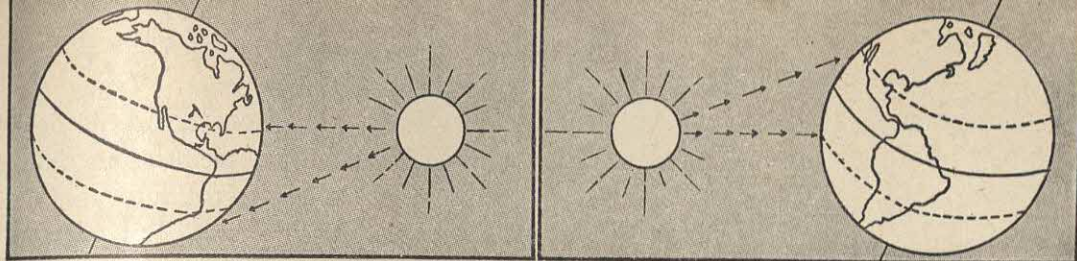
nually. Soft green fields of alfalfa furnish feed for the cattle that graze on the mountain slopes in summer and are brought back to the valley in the fall. There are luscious pastures for the purebred Holstein herds that supply the milk for butter, cheese, and other dairy products. Produce from this valley feeds most of Chile's people. In this valley is located Santiago, the capital, which we are to visit next.

Every farm that we see seems to have a vineyard. The blossoms from the apple, peach, cherry, and pear orchards must make a lovely sight in spring. Melons, grapes, and pears are shipped all the way to New York during our winter months.

How do the seasons in Chile differ from those in the United States? Señor Palma says that a farm boy's diary in central Chile would read very differently from that which a boy in the United States might keep. It might read something like this:

April 20: Today we finished sowing our winter wheat.

June 21: This morning when I started



In the middle of the day the sun shines almost straight down upon us. Then its rays are very hot. In the morning and afternoon the sun's rays shine on a slant. Then the rays are not so warm. Perhaps this will help us understand why we have summer and winter. The first picture shows how the sun shines straight down on areas north of the equator on June 21. This is the beginning of summer in these lands. The sun's rays are then shining on a slant upon the lands south of the equator. It is winter there. By looking at the second picture, can you tell which lands are having summer?

to school, the temperature was below freezing. Snow fell this afternoon. This was the shortest day of the year.

July 4: Today it was very cold again. There was a heavy snowstorm. Mother kept me home from school.

September 21: Spring is here again. How balmy the air feels! The snow is all gone. I helped Mother place the flower plants in the north windows, where the sun will make them grow rapidly.

October 1: Today the air is filled with the fragrance of plum and peach blossoms. The leaves are coming out on the trees.

November 1: The men are planting corn today.

December 15: Hurrah! The last day of school! Vacation lasts until March 1!

December 27: Today we started to harvest the winter wheat, using the new combine from the United States of North America.

From this diary we can see that the seasons in his part of the world differ from the seasons in the United States. In all lands south of the equator the seasons are just opposite to those in lands north of the equator.

How do the Chilean farmers live? Not all the big farms over which we are flying use modern machinery. Labor is so

cheap that on some of them wheat is planted by "broadcasting." The ripe grain is cut with a sickle, and the sheaves are tied by hand, just as was done in the early days on our own wheat farms.

Many of the estates date back to Spanish days, and the present owners live like lords. Near Santiago is the *Red River Hacienda*. In it are some 400,000 acres of land. An avenue of eucalyptus trees lines the road leading up to the palatial country home.

On the estate are several villages where the little homes of the workers are located. The workers, or sharecroppers, are called *inquilinos* (ên·kê·lē'nōs). Señor Palma tells us of an *inquilino* named Juan, who farmed the same plot of ground his ancestors had farmed for 200 years before him. In all his life Juan never saw the owner of the hacienda. Like the big landowners in Peru, the Chilean aristocrats prefer to travel or live in the city. Juan occasionally saw the overseer of the village in which he lived. It was the overseer who gave him seed to plant and told him when he could use the oxen and plow.

Juan had a few acres which he could work as his own. But he had to do the work assigned him on the owner's fields first. Because the owner furnished the seeds and tools, half of the crop of wheat,

beans, or potatoes that Juan raised went to him. This was called "farming on shares."

One winter Juan's baby became sick. To get money for medicine, Juan had to sell his half of the next year's crop before he even planted it. The merchant who bought it gave Juan only one fourth of what it was worth. That year Juan made very little for his work.

The house in which he lived was made of mud bricks mixed with straw, but it was neat and clean. It had only one room. In this room all the family lived and slept. The straw beds seemed warm and soft on winter nights. But when it rained, they were likely to get soaking wet from the water that leaked through the thatched roof.

Juan's son never thought of going to school. Education was only for the rich. But he did go to Mass on Sunday mornings, and on feast days, or *fiestas*, he took part in the dancing and singing on the public square.

As we look down on the fertile fields below, we realize the tremendous difference that exists between the meager life of the hard-working *inquilino* and the luxurious existence of the idle landowner.

Why is the Chilean mestizo an energetic worker? Yet the *inquilino* is a fine worker. Chile is the first Andean country we have visited that does not have a large Indian population. More than half of the people in Bolivia and Peru are Indians. But in Chile there are only about 100,000 full-blooded Indians. These few are Araucanians (ă'r'ô·kă'nĭ·ănz), and they live much as their forefathers did several generations ago. The Araucanians are an unconquered people. The Incas never succeeded in subjugating them. Living in a temperate climate, they were fierce and aggressive like the Sioux and Apache Indians of our western plains. Like the North American Iroquois, they had an organized government and a strong determination to fight for their rights.

The Spaniards could not defeat the



There are 600,000 farm workers in Chile. Most of these are *inquilinos*, bound to their landowners from one generation to another. Often their homes are crude adobe huts with thatched roofs. Sometimes, depending on the landowner, the workers live in better houses. With little space for himself on the great hacienda, sometimes the *inquilino* has to use even the roof of his house to dry his crop of corn.

The sparkling city of Santiago nestles in the northern end of the Central Valley. It is a kind of gateway to the riches of the valley. Far in the distance, hidden in the haze, are the foothills of the Andes, while high above can be seen the towering snow-clad ridge of this vast mountain chain.



De Palma—Black Star

Araucanians, though they were able to drive them southward from their original homes in northern Chile. So bloody were the battles that in 1641 the Spaniards made a treaty giving the Indians all the land south of the Bío-Bío (bē'ō·bē'ō) River. Many of the Spanish soldiers settled down among the Araucanians. From the mingling of these two strong peoples, Araucanian and Spanish, have come the *inquilinos* of Chile. They are noted for their strength, loyalty, and independent spirit. The healthful, temperate climate and the nourishing foods which are grown in the Central Valley, along with a good racial heritage, give the Chilean workers an energetic character. Señor Palma says we shall not see any pure-blooded Indians in Santiago, but we shall see many mestizos, the descendants of Araucanians and Spaniards.

Why is Santiago the key to the Central Valley? Señor Palma is eager to reach his home in Santiago. Our plane glides down to Los Cerillos (lōs thā·rē'lyōs), the airport that is one of the show

places of South America. The white-crowned Andes appear to be but a few miles away. Señor Palma promises to call for us in the morning to show us the city. We go to our ultramodern hotel, which is seventeen stories high. It has a swimming pool in its roof garden.

There are more than a million people in Santiago, about one-fifth of the population of Chile. This city is the marketing point for the wheat, corn, barley, oats, rye, alfalfa, sugar beets, flax, hemp, tobacco, vegetables, and fruits grown in the rich Central Valley. The location, the climate, the wonderful water supply, and the surrounding farms and fields have caused Santiago to grow from a huddle of huts to a thriving metropolis. Today it is the center of Chile's cultural and political life.

Santiago has all the aspects of a modern city, but at the same time keeps the charm of Spanish architecture and art. In a rented car we drive up and down the *Avenue Bernardo O'Higgins*, the main thoroughfare. It is 300 feet wide and

traverses the city for more than three miles. Between the broad traffic lanes is a parkway shaded with elms and acacias (ă-kā'shāz), and studded with flower gardens. The many monuments to Chile's famous men make it a "Hall of Fame."

We stop at the *Civic Center*, which is three blocks square. The block in the center is a *plaza*, and around it are many government buildings. We visit the massive building where the President lives. The colonial exterior is in striking contrast to the modern buildings around it. We walk through the Workers' Compulsory Insurance Board, the Central Bank of Chile, and the building housing the Department of Agriculture.

We drive past the *National Congress Building*, the *Cathedral*, which stands on the site of the little wooden church built by the Spaniards in the sixteenth century, and the *Opera House*. We stop at one of the most attractive buildings in the capital. It is the *National Library*, in which Señor Palma is employed, which has a fine collection of books on South American history.

Why is Chile proud of its history? We ask Señor Palma to tell us something of Chile's history. Pointing from a window to a hill just a block away, he says, "Pedro de Valdivia (pā'drō dā vāl-dē-vyā) camped at the foot of that hill and founded this city in 1541." We look across a plaza and see that the hill is now a public park. Valdivia came to Chile to build a home and empire. Despite repeated Indian attacks, Santiago prospered. Other towns were founded, and Chile became an important Spanish colony.

Spain mistreated Chile just as she did the other colonies. And the Creoles of

Santiago liked it no more than did those of Bogotá and Caracas. The hero of Chile's war for independence was *Bernardo O'Higgins*. The principal street in Santiago is named for him. His father was an Irish emigrant who started out as a traveling peddler and rose to be the viceroy of Peru. Rising from poverty to the highest position in the Western Hemisphere was most unusual in colonial Spanish America. Bernardo O'Higgins was born in Chile and went to school there and in Peru. Later he went to England to study a profession. In London he met Francisco Miranda. Miranda per-



THE STORY OF CHILE TOLD BY MAPS

SIZE. Chile is as long as the United States is wide.

REGIONS. For purpose of study it is best to divide Chile into three regions, the dry lands of the north, the rich Central Valley where most of the people live, and the highland lake and mountain region of southern Chile. We must remember that all Chile is mountainous along the eastern border.

RAINFALL. Chile is a land of extremes. In the north, it almost never rains. In the south, the continuous rain is a nuisance. In the Central Valley there is enough rain except during the dry Chilean summer, when the farm lands must be irrigated.

CROSS SECTION. This shows Chile's coastal range, the Central Valley, and the high ridge of the Andes. What happens to the coastal range at the southern end of the continent? What happens to the Central Valley?

CHILE

EXPORTS

Copper
Nitrate and iodine
Wool
Iron ore
Hides and skins
Meats

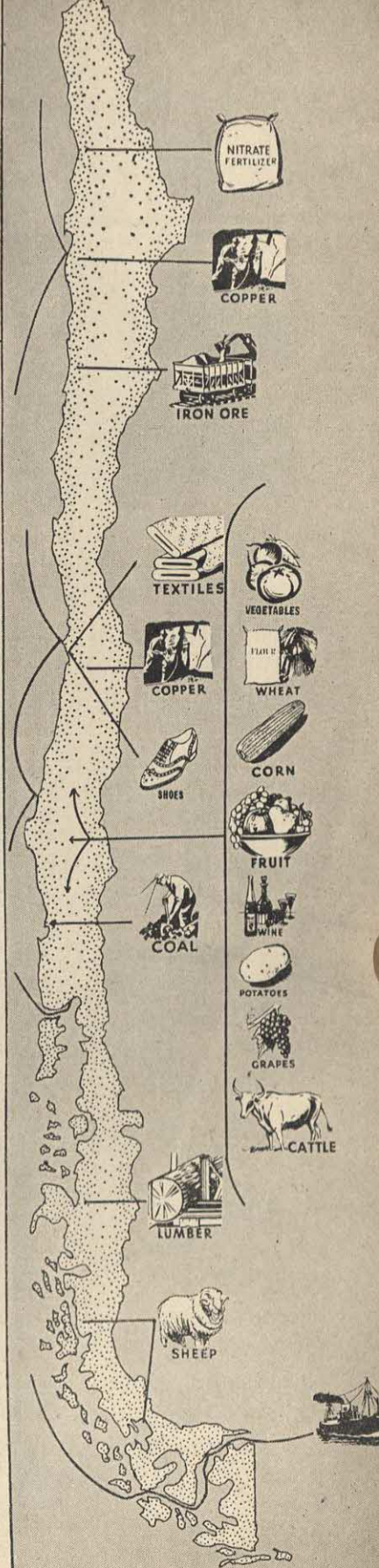
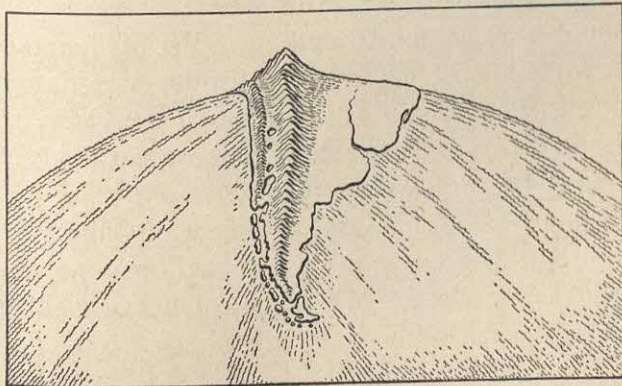
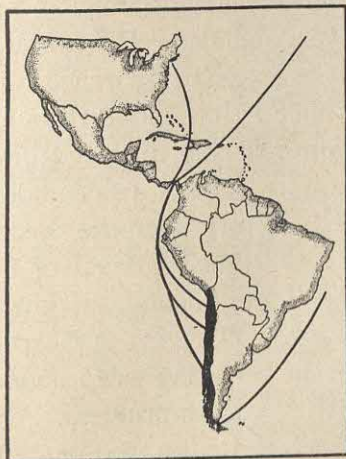
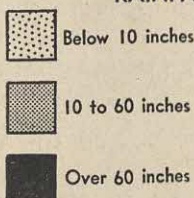
IMPORTS

Machinery
Petroleum
Textiles
Foodstuffs
Automobiles
Iron and steel goods
Chemicals

← REGIONS



RAINFALL →





Courtesy Chilean State Railways

"The most beautiful lake I have seen in all the world," said President Theodore Roosevelt. Having traveled widely and viewed many lakes, he was most impressed with this one, with Mount Osorno ever wearing a cloak of spotless white in the background.

suaded young O'Higgins to help free South America from Spain. What other South American hero was also influenced by Miranda?

When O'Higgins returned to Chile, he was a handsome young man, brave, well-educated, and progressive. He was a natural leader of men. In 1810 Chile declared its independence, and O'Higgins was elected to the first congress. From Peru, however, came a huge army to overthrow the new government. O'Higgins became a general in the army of defense. By 1814 the Spanish had defeated the Chileans, and O'Higgins had to flee across the mountains to Argentina.

There he joined forces with San Martín. It took them two years to organize the liberating "Army of the Andes." In 1817 the army was ready. San Martín deceived the Spaniards by having small groups of soldiers cross the Andes in different places. Then the main army made a heroic march over a little-used mountain pass three miles high. At dawn, February 12, 1817, O'Higgins led a cav-

alry attack that routed the Spanish army.

Later the Spaniards reinforced their army, and the war continued. In 1818 they surprised the patriots. O'Higgins' horse was shot from under him, and he was wounded. His army was scattered. The Spaniards marched toward Santiago, thinking its conquest would be easy. Before reaching the city, they were met by a new Chilean army under San Martín. His victory over the Spaniards was due to the timely arrival of O'Higgins with reserves. Ill and carrying his arm in a sling, O'Higgins had hastened to the scene of action when he learned that the battle was in progress. After that it was not long before the Spaniards were driven out of Chile forever.

Independence was declared, and under O'Higgins a constitution was drawn up, and he became the first president, or "supreme director" as he was called, of the *Republic of Chile*.

Today the president of Chile holds office for six years and may not be re-elected. He has a cabinet of eight mem-

bers. The Congress consists of a Senate and a Chamber of Deputies.

Why is the geography of southern Chile very interesting? We have already visited two regions of Chile and, after Señor Palma's glowing descriptions, we decide to visit the third, southern Chile.

From the standpoint of geography southern Chile is fascinating. The Andes that are so high in the middle of the continent gradually dwindle in height until at Cape Horn they slip completely beneath the sea.

Just as the mountain peaks are lower in the south so are the valleys. We remember that in Peru and Bolivia many of the valleys were from 10,000 to 15,000 feet above sea level. At its northern end, Chile's Central Valley is about 2,000 feet above sea level. The southward floor of this valley gradually lowers. About halfway down its length, the valley begins to be dotted with lakes. Then at a point about 41° south of the equator the valley floor disappears under the sea altogether.

The same thing happens to the coastal

range. Near Valparaiso the range is over 3,000 feet high. But at about 42° south the range gives way to an arm of the sea. From there on south for several hundred miles the coastal range is under water except for peaks and high plateaus that rise above the water to form islands.

The most famous part of southern Chile is the lake region, and this is the section of the country we shall visit.

Why is the lake country of Chile famous? As our plane flashes southward, the farms seem to shrink in size. Adobe houses with tile roofs give way to frame cottages covered with shingles. Pioneers are still carving homes from the forest lands in this area. We pass "Araucania," where the fast-disappearing Araucanians live. Soon we enter the "Switzerland of South America." Ages ago, glaciers tore the coarse gravel from the mountains and piled it into hills shaped like horseshoes. Within each horseshoe, a lake has formed. This lake country is Chile's vacation land, a paradise for sportsmen and lovers of nature.

In southern Chile the vast grasslands make ideal sheep ranges. Most of the sheep are raised for their wool, which grows very heavy in this cold, damp region. The herder's poncho serves as a rain cape and overcoat and at night as a blanket.

Fenno Jacobs—Three Lions



When our plane lands, we hire a car to take us to one of the lakes. Here we see a view we shall never forget. Towering over the lake is 8,700-foot Mount Osorno. It is a conical, snow-capped peak that reminds us of pictures we have seen of Fujiyama, the sacred mountain of Japan. We take a boat ride on the lake and see the bright blossoms of the tall fuchsia (fū'shā) bush along the shores. Señor Palma points out the nalca (nāl'-kä) plant, with its giant leaves. Its leaves were formerly used by the Indians for sunshades and roof thatch. On a mountainside we see a rainbow waterfall leaping over a steep precipice. Truly this is a land of enchantment.

How do the people of southern Chile make a living? From our rainfall map of South America we can see that the greater part of this region has a very heavy rainfall. As a result, dense forests cover much of the land. In the last few years lumbering has become very important in Chile. Only mining and agriculture are more valuable. But lumbering is carried on with great difficulty. The land

is very rough, and the roads, where there are roads, are usually axle-deep in mud.

In the very southern end of Chile sheep raising is important. Some of the ranches are very huge. One has over 1,000,000 sheep. These sheep are raised mostly for their wool. The cold climate produces heavy fleeces that bring a good price in the wool markets of the world.

The shipping point for these fleeces is the port of Magallanes (mä'gäl-yä'nās) on the Strait of Magellan. Sheepmen from both Argentina and Chile bring their fleeces here for shipment.

Our plane awaits us at the airport to take us back to Santiago. Tomorrow we shall be off for an exciting trip across "the top of the world."

Although Chile is mainly an agricultural country, it never produces enough farm products for its own use. Quantities of wheat, cattle, fruits, and forage are imported year after year. The country is not likely to become self-supporting in an agricultural way so long as it is burdened by the system of large estates worked by poverty-stricken *inquilinos*.

YOUR ACTIVITY PROGRAM

As you continue your study of South America, you will find more and more opportunities to invent worth-while activities of your own. Be ready to suggest ideas for activities to enrich your understandings.

Solving the Problems

A. Recognizing the Problems

1. Write down in your notebook all the problems presented in this unit. How many are there?
2. How many of the problems deal with the history of Peru, Bolivia, and Chile? Put a check (✓) in front of each of these.

3. How many of the problems deal with the present life and industry of these countries? Put a line under the first word of each of these problems. How many such problems are there?

B. Gaining the Understandings

1. If you are able to answer the following questions correctly, you may be reasonably sure that you have understood what you have read.

Why is the coast line of Peru a desert?
How does the Humboldt Current cause snow to fall on the Andes?

What is guano used for and why is it important to Peru?

In what ways were the Incas highly advanced?

Who conquered the Incas and how was it accomplished?

What were the reasons for Lima's importance throughout much of its history?

Why does Peruvian cotton bring a good price in the world market?

What product is the most valuable to Peru?

Where do most of the people of Peru live?

How does the geography of Peru create difficulties for the national government?

What is the chief handicap of the eastern lowlands of Peru?

What makes Lake Titicaca different from any other lake in the world?

What is unusual about the place of the seat of government in Bolivia?

In how many ways is the llama important to the Indians of Bolivia?

In what ways do Bolivian potatoes differ from those grown elsewhere?

What metal did the Spaniards in Bolivia overlook?

Why are the mines of Bolivia active again?

Since Bolivia is an inland country what special problems does it have?

What obstacles stand in the way of Bolivia's development?

What are the three geographical sections of Chile?

What products make the desert section of Chile valuable?

What is Chile's largest port? Why is it important?

What is the system of farming in Chile?

Why is the southern part of Chile valuable, as well as interesting?

Why do the *inquilinos* make fine workers?

2. What do these words mean? Be ready to tell the class.

altiplano

chuño

sierra

montaña

soroche

vicuña

poncho

inquilino

caliche

nitrate

3. How many main "understandings" do you have that correspond with the problems presented in Unit 6? Write out these "understandings" and prepare to defend your wording of them in class.

Enriching the Understandings

1. Have a story-telling party to which you invite another class and entertain them with legends and stories about the Incas. In preparation for this party, you will want to read several of the books listed on page viii.

2. Find out what you can about the dispute between Peru and Ecuador over the boundary line which was settled at the Pan American Conference in Rio de Janeiro, January 29, 1942. Have a committee report its findings to the class.

3. The history of Peru and Bolivia is full of dramatic incidents. Make a play out of any of the following incidents or out of some story you have found in your outside reading:

Chincha and the Incas

The Mountain that Melted

The Capture of the Inca Chief

4. Get pictures of native costumes showing both Spanish and Indian types. From these draw pictures on wrapping paper and make a frieze of colorful pictures for a border.

5. Find out what you can about the history of canning with tin. Report your findings to the class and explain how they are related to the principal mining industry of Bolivia.

6. Make a list of all the uses for copper and tin that you can find.

7. Find out why some people think copper cooking utensils are superior to other kinds.

8. Make a model of a terraced Inca village using mud for the adobe houses and pebbles for the sides of the terraces.

9. Find the national anthems of Peru, Bolivia, and Chile and learn to sing them.

10. Make a list of the names of the men who were important in the history of these countries. Add to your list by consulting other books.

11. Add the flags of these countries to your collection.

12. See if you can find any stamps from these countries that commemorate their heroes, and put them in your stamp collection.

Applying Your Knowledge

Write a paper telling what you have learned of the special problems of these three countries and tell how you think these problems might be solved with our assistance. The following questions may help you think of ideas for your paper.

Do many people have the desire to pioneer? What inducements could be made to encourage people to settle in remote parts and develop them?

What is the use in opening up new, or undeveloped, country?

Does the world need more exchange of goods with South America?

How could transportation be improved?

How could the nitrates found in Chile be used for opening new highways?

Do people have the same desire to work hard if they never have a chance to own land?

Can all people learn from each other?

How can we help South America?

Forming Opinions and Attitudes

From your reading of the text and of outside material you no doubt have formed opinions on certain debatable subjects.

1. Plan a debate on the following subject, half of the class taking the affirmative and half the negative side.

Resolved: The Inca Indians were a ruthless, barbaric people, who fully deserved the fate which befell them.

Here are some points that may help in the preparation of your arguments: Were the Incas cruel to the enemy tribes which they subjugated? Were their subjects as happy as they had been while free? Did the Incas help their subjects to advance in civilization? Did they allow their subjects to help in the government of the empire? Did the Incas help to develop friendship among different tribes and do away with isolated groups? Did the Incas show a sense of honor and fair play in their dealings with the Spaniards?

2. What is your opinion of the results of the work of Mr. Meiggs? Prepare to discuss the question in class.

3. Do any of the statements below express opinions of yours? If so, enlarge upon the ideas and defend them to the class. If they suggest the opposite of your beliefs, tell why you disagree with them.

The Indians have been trying for hundreds of years to develop the outlying parts of Peru and Bolivia, but the enemies of nature and man have been too much for them. People might just as well stop trying to develop these regions.

The mestizos of Chile have shown their ability and should be given the right to own and farm their own land.

It is a good thing to be isolated in a faraway valley and remain ignorant of world affairs and governmental problems.

4. Just as the people of South America are anxious to have us know them as they are and to understand their many problems, we too want our friends there to know us as we really are. What is your opinion concerning the types of stories or articles that should be sent to the other Americas to be translated and read there? Tell the class your opinion.

5. Write a story or an article that you think would give a true picture of some part of our way of life. You might bring in some of the following points:

A. Our schools

1. The various levels such as the elementary, high school, and college or university level, and how many years there are in each.

2. Country and consolidated schools, with their buses.

B. How our homes are built and where our yards and gardens are placed

C. Methods of transportation

D. Games and sports

E. Sights you have seen that would be interesting to others

6. How do you think visitors from the United States to South America should *act* to express our attitude of friendship? Should they try to imitate the manners of the country they are visiting, or should they conduct themselves so far as possible just as they do at home? Be prepared to discuss this question of attitude in class.



Courtesy Pan American Airways System

A ride over the top of South America by plane is an awe-inspiring and unforgettable experience. There are no landing places, only rocky crags, deep ravines, snow-crested ridges, and soaring peaks whose cloud plumes stretch off hundreds of miles in the distance.

7. The "Silver River" Countries

"Well," remarks the steward, as we leave Santiago, "you are going to have a very interesting trip." He inspects our seat straps, warns us that this will be one trip during which we cannot move about, and shows us how to use the oxygen tubes beside our seats.

Over the Andes. The high green valley in which Santiago lies is soon left far behind, and we begin to see before us range after range of forbidding mountain peaks, without a sign of life.

Our steward tells us that in winter this is one of the world's worst travel routes.

When we ask how the air line gets its weather information, we learn that a

meteorologist, high up in the Andes, wires weather reports several times daily to airline headquarters and to pilots enroute. He stays in the mountains for six months during the winter, his only companion a boy who cooks for him and performs other chores around the one-room stone house. It is said that sometimes after a big snowstorm the house lies completely buried under the drifting snow. Supplies are brought here on the backs of burros.

Our plane continues to climb. When some of the passengers feel faint from the high altitude, they inhale a breath of oxygen. We see faraway the towering peak of Mt. Aconcagua (ä'kõn·kä'gwä),



Though there is great rivalry between Chile and Argentina, there has been peace between the countries since the days when the statue of "Christ of the Andes" was erected.

Courtesy Buenos Aires and Pacific Railroad

tween Chile and Argentina over the boundary line between the two countries. Finally war seemed likely. Then Argentina and Chile wisely decided to divide the disputed land between them. A great friendship grew up between the two countries. Their people planned to erect a monument to remind future generations that peace is better than war.

A famous sculptor was commissioned to make a figure of Christ out of the melted cannon of the two countries. Then came the problem of how to move the tremendously heavy statue up the steep mountain trails. Mules were used for part of the distance, but finally even they were not able to complete the task. So thousands of soldiers and sailors of the two countries hitched themselves to the ropes and dragged the statue to the place where it now stands, 12,000 feet above the sea.

the highest mountain in the Western Hemisphere. It is almost 23,000 feet high. Its top is dazzling white. Its upper slopes are of a strange bluish white.

The mountains begin to close in. It seems at times as though the wings of the plane will brush the rocky walls. Then the steward points out a sight that we all have been waiting to see. Below us in the famous Uspallata (ōōs'pāl-yä'tä) Pass, on the border line between Argentina and Chile, is the most famous statue in South America. It is the *Christ of the Andes*. Years ago there were disputes be-

Our steward tells us that at the base of the statue is an inscription which reads: "Sooner shall these mountains crumble into dust than the Argentines and Chileans break the peace sworn at the feet of Christ the Redeemer."



Argentina is shaped roughly like a triangle. If we place it on its side over a map of the United States, it stretches almost the full width of our country. If we placed it on a map of North America, Argentina would stretch from Cuba to the lower end of Hudson Bay.

Wheat is one of Argentina's most valuable products. She produces an average of 220,000,000 bushels of wheat per year; the United States produces approximately 875,000,000 bushels. Argentina exports about 130,000,000 bushels, while the United States exports around 50,000,000 bushels. Why does Argentina export more than the United States? Note the American farming machines.

Courtesy International Harvester



ARGENTINA—FOOD PRODUCER FOR THE OLD WORLD

Chile is soon left far behind, and now we are flying over Argentina, the most progressive, the richest, and the largest Spanish-speaking country in all South America.

Why was this region once called the Viceroyalty of La Plata? We remember from our maps that this land over which we are flying now was long ago a part of the Viceroyalty of La Plata (lä plä'tå). How it got this name is an interesting story. In 1516 a Spanish explorer was sailing along the east coast of South America. He turned into what first seemed to be a gulf, but later turned out to be the mouth of a great river.

The explorer was killed by Indians when he went ashore with a small landing party. One of his cabin boys was captured. The cabin boy's life was spared, and he was adopted into the Indian tribe. About ten years later Sebastian Cabot, while exploring in this region, sailed up the same river and found the cabin boy. The latter, now grown to manhood, told Cabot many interesting things about the country, and Cabot stayed on for three years exploring it. Far up the river he

found Indians wearing crude silver ornaments which probably came from Bolivia. But Cabot knew that his employer, the King of Spain, was interested in silver, so he named the river *Río de la Plata*, which means "River of Silver." Later on, this whole region came to be called the *Viceroyalty of La Plata*. The river still bears the name given it by Sebastian Cabot.

What does the map tell us about Argentina? Today most of the land that was formerly included in the Viceroyalty of La Plata is called Argentina. A glance at our map shows us that Argentina is almost as long as Chile. How many degrees of latitude are there between the northern and southern ends of Argentina? Approximately how many miles does this make?

We notice that the northern tip of Argentina lies in the equatorial region, but most of the country is in the southern region of changing temperatures. In equatorial regions most of the people live in the highlands. Where are we likely to find most Argentineans living?

A glance at the relief map shows us an-

other important feature of Argentina. The country consists largely of a vast lowland plain. The land is lowest near the Atlantic Ocean and gradually rises toward the Andes Mountains in the west. Does Argentina's lowland plain and her temperate climate help to explain why she is the richest and the most populous Spanish-speaking country in South America?

The northern part of Argentina is drained by one of the world's great river systems. The mouth of this river system is the *Rio de la Plata*, or the *River Plate*, as it is called on some maps.

The Rio de la Plata is formed by the junction of two mighty streams: the 1,000 mile-long Uruguay (ŭ'rōō·gwā) and the 2,450 mile-long Paraná (pā'rä·nä'). The Paraná is so huge that the Indians called it "Mother of the Sea." The Rio de la Plata and its tributaries comprise the second greatest river system in South America. What is the greatest?

Where is Argentina's "garden of the Andes"? Our plane is now following the route of the Trans-Andean Railroad, which connects Argentina with Chile. This railroad was completed in 1910, when a long tunnel under the Uspallata

Pass was opened. We are told that part of the way now has to be covered by automobile, because the heavy rains and snows have washed out the railroad tracks in some places.

One of the first explorers to follow this trail from Chile to Argentina founded a little city in the eastern foothills of the Andes. This city of Mendoza (mĕn-dō'sä) is our first stop in Argentina.

Mendoza is really an oasis in the semi-arid foothills of the Andes. On all sides of the city we see green vineyards. They are irrigated with the water of snow-fed rivers from the slopes of the Andes. From colonial times to the present, Mendoza has been noted for its red wine. The climate and the fruit industries have attracted many European immigrants, especially Italians.

In the spring the blossoms of pear, peach, apple, plum, and cherry orchards make a delightful contrast to the barren hills. Why can fresh fruit from this region be sold in the markets of Europe and the United States?

Why is Córdoba an important city? After a flight of about an hour and a half we make our second stop, this time at Córdoba (kô'rđō·vä), the third largest



On the arid eastern slopes of the Andes is one of the great irrigated fruit regions of the world. The vineyards are especially fine, and the many Italian immigrants in this region make wine from their grapes, just as they did back in Italy.

THE STORY OF ARGENTINA TOLD BY MAPS AND DIAGRAMS

CROSS SECTION. The dividing line between Argentina and Chile is the continental divide.

REGIONS. The three most important regions of Argentina are the rich, fertile plain of the Pampas; dry, rolling Patagonia; and the hot, wooded Gran Chaco. The unmarked region of the north and west is mostly dry foothills of the Andes. The spur to the east is largely unsettled and even unexplored. Many Indians live here in this region of swamps and hills.

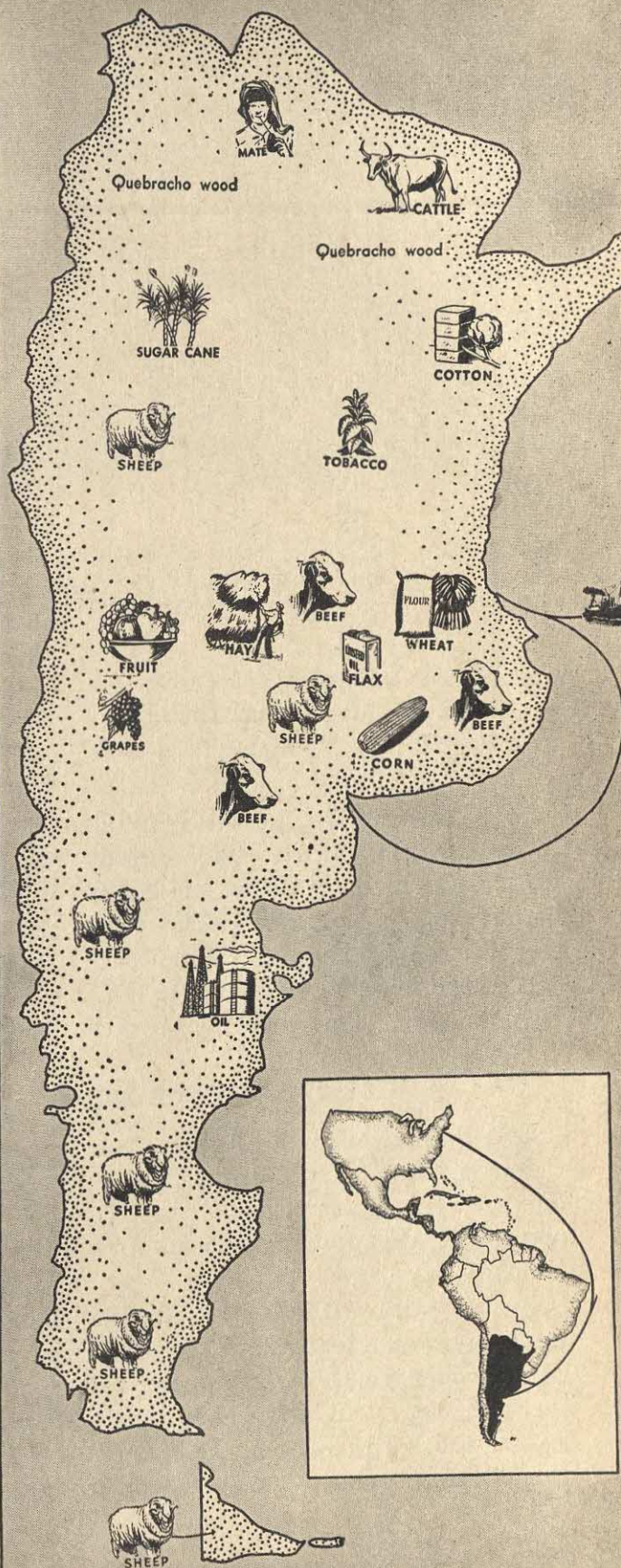
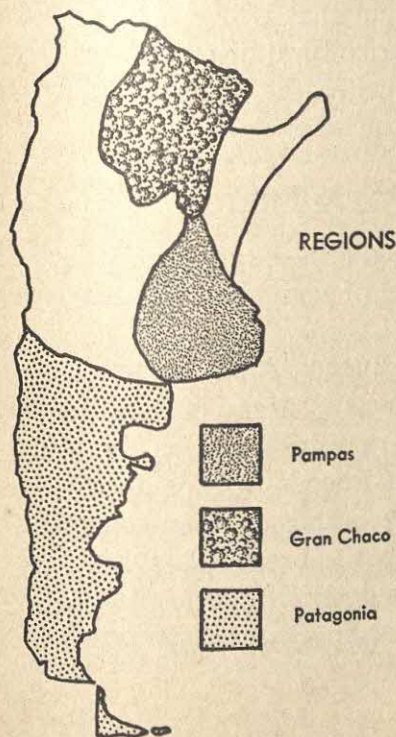
PRODUCTS. What products of Argentina can we use? Where do they come from?

EXPORTS

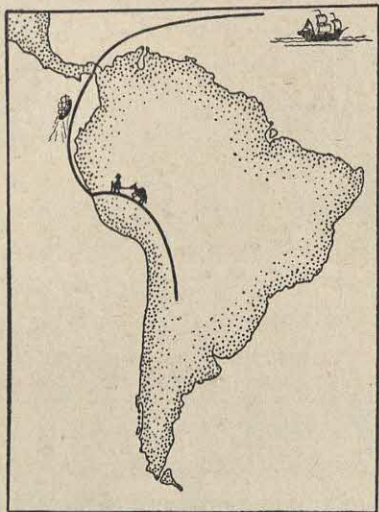
Meats
Wheat and flour
Linseed
Corn
Wool
Hides
Quebracho extract
Oats and barley
Dairy products

IMPORTS

Textiles
Iron and steel goods
Petroleum products
Machinery
Automobiles and other vehicles
Coal and coke
Foodstuffs



city in Argentina. It is a hustling manufacturing center, situated in a rich agricultural section between the mountains and the plains. This situation helped to make its early history very interesting.



The early route from colonial Argentina to Spain was long and roundabout.

In the colonial days the settlers in this region were forbidden to trade directly with Spain. Products from Spain had to be first shipped to Panama. They were carried across the isthmus by muleback and thence down the west coast to Lima by ship. From Lima they were packed

across the mountains to what is now Argentina. The people in Córdoba and the surrounding towns found it very profitable to raise mules with which to carry on this trade. To this day some mules are raised here.

The fine climate, the waterfalls and lakes, and the outdoor sports also make the region about Córdoba a mecca for tourists and pleasure seekers.

Where is sugar cane grown? North of Córdoba is the city of Tucumán (tōō'-kōō-män'). During colonial days, Tucumán was an important trading center. Then in the nineteenth century the growing of sugar cane in the irrigated valleys about Tucumán became important. Much labor was needed for this work, and the area became densely populated. This area produces about seventy per cent of the sugar consumed by Argentina.

After fifteen minutes in the cool, bracing air of Córdoba, we are again on our way. We have left the ranges of the Andes far behind and are flying over a flat, level plain that is one of the most important agricultural districts in all the world. It is called the *Pampas*, after an Indian word meaning "plains."

A VISIT TO BUENOS AIRES—"PARIS OF AMERICA"

Over the horizon, in the distance, loom the skyscrapers of a great city. Our plane dips and lands at a large and modern airport. We are in a suburb of Buenos Aires (bwā'nōs ī'rās).

Buenos Aires is the largest Spanish-speaking city in the world and the largest city anywhere south of the equator. It is also the largest city in all South America and the third largest in the Western Hemisphere. Today there are about

3,000,000 people in the city and its suburbs. One out of every four Argentineans lives here.

Why did Buenos Aires become such an important city? Many of the clues to its greatness may be found on the map. It shows that Buenos Aires is a seaport. Every year thousands of ocean-going vessels steam up the broad Plata River to the enormous docks of Buenos Aires, the busiest harbor in South America. The



Schostal Press Agency

Cutting through the heart of modern, bustling Buenos Aires is the world's widest street. Like many other streets in Latin America, it is named for a day famous in the nation's fight for independence. It is called Avenue of July 9. The obelisk commemorates the 400th anniversary of the founding of Buenos Aires.

citizens of Buenos Aires call themselves *porteños*, which means "port dwellers."

Buenos Aires is also an important river port. River boats carry cargoes from Buenos Aires up the Paraná and Uruguay rivers into an area almost as large as the portion of the United States which lies east of the Mississippi River. In what ways may Buenos Aires be compared with our city of New Orleans, and the Paraná and Uruguay rivers be compared with the Mississippi and Missouri rivers?

The map gives us another clue to the greatness of this city. Spread out around Buenos Aires in a great half circle, are the Pampas. The city is the natural trading center for this rich area.

But strangely enough, Buenos Aires was for many years a tiny forgotten village, and no one dreamed that it would ever become "the first city" of South America. We remember that in early colonial days Spain insisted that all its trade with the southern colonies of South America be carried on by way of Peru

and Panama. The important commercial cities of this region were therefore places far inland like Córdoba. Later the region became a part of the Viceroyalty of La Plata. Then the people were allowed to trade directly with Spain by way of the Atlantic Ocean. Buenos Aires immediately began to prosper and grow, even though the colonial merchants were still forbidden to trade with any but the Spanish.

In 1806, Spain and England were at war. A British naval expedition captured Buenos Aires and opened the port of Buenos Aires to the trade of all nations. Then the people of the city discovered it more profitable to trade with the other nations than just with Spain. With increased trade the city began to grow by leaps and bounds.

In what ways is Buenos Aires both old and new? As our bus takes us into the city, we are surprised to see how different Buenos Aires is from the other South American cities we have visited. Here

everything seems sparkling new and up-to-date.

Since its growth as a city, Buenos Aires has acquired the name "Paris of America." For in its interests, its customs, and its culture, the city is more like Paris than any other city. People in Buenos Aires take great pride in this fact. But in its skyscrapers, its subways, its modernistic homes, and its fashions, it is much like either Paris or New York or London.

All round us horns are honking, and pedestrians are hurrying. Trucks, cars, and taxicabs race down the wide streets. We are told the buses are sometimes called "mankillers," and the drivers, "assassins." There are plenty of police officers, but we miss the red and green signal lights. Our driver says that traffic lights were tried, then taken out because people got along better without them. But on some of the corners there are giant mirrors which show the cars coming from the side streets. In addition to buses and automobiles, there are numerous street-car lines and four subways. These are among the finest and most beautiful subways in the world.

Many of the apartment houses and hotels that we see remind us of the most modern buildings in our own country. However, some of the houses remind us of the other South American cities we have visited. Many are built in Spanish style, having plaster walls covered with gay-colored paint. Within the houses are tiled patios. The patio is the coolest place in the house. In some cases the summer sun is shut out of the patio with awnings, and the tiles are kept cool with running water.

During the cold months a glass roof may be put over the patio, and the sunshine keeps it warm inside. Since most of the Argentine homes have no furnaces or boilers, the glazed patio is the warmest place in winter.

There are other things in Argentina which remind us more of the Old World than of the New World. There are narrow streets that date back to the early days. Many of the Old World customs are still observed. For instance, young men and women of the upper class do not mingle freely, as in our own country. They go out together only in the company of



A good many people looking at this picture might say: "Why, that looks just like Central Park and the skyscrapers of New York." Buenos Aires has many fine buildings and beautiful parks.

Argentina's capitol building, in which the two houses of her Congress meet, faces a beautiful plaza and a fine monument to the country's founding.

Ewing Galloway

chaperons. Women are not allowed in some of the cafés, and in many of the restaurants they occupy separate rooms.

The downtown section of the city interests us most of all. Here are broad plazas surrounded by beautiful apartment houses, hotels, and skyscraper office buildings. We drive down the widest street in the world. The Spanish name of this street means *Avenue of July 9*. July 9 is one of the national holidays commemorating the Argentine fight for independence. Below the street level is a huge parking space for automobiles.

During our first night in Buenos Aires we stay at an air-conditioned hotel. It is handsomely furnished and has every modern convenience.

Here in Buenos Aires the usual hour for supper is nine o'clock. When we go to the hotel dining room, we are surprised to learn that all the food in this hotel is cooked over charcoal fires. Our waiter tells us that in homes and restaurants throughout all of Argentina the cooking is done over charcoal fires. One of the reasons for this is that Argentina has very little coal.

The menu is especially interesting. We recognize many foods that tempt us at home, even though their Spanish names are a bit confusing. Three desserts that especially intrigue us are "Banana Esplit," "Sundae de Meple," and "Sundae de Butters Cotch."

But the main courses are mostly beef—roasted, boiled, broiled, fried, stewed, minced; beef pies, cold beef—in fact,



beef in every possible form. Our waiter tells us that if we visit the Pampas we shall see for ourselves why beef is such an important food in Argentina.

The following day we board a sight-seeing bus for a tour of the city. We visit the tomb of San Martín in the *National Cathedral*. In front of it are handsome soldiers dressed in red, white, and blue uniforms. They are members of the Mounted Grenadiers. San Martín organized this cavalry company, and it became the most important part of the army which helped defeat the Spanish in the fight for Argentina's independence. We also visit San Martín Plaza, where a towering monument honors this great leader. It is easy to see that to Argentina, San Martín is as great a hero as Bolívar is to Venezuela.

Then we see the *Rose House*, the palatial home of the President of Argentina.



Charles Perry Weimer—Three Lions

These Gauchos are just finishing their noonday meal. They have eaten out in the open and broiled their dinner over a roaring fire. Ribs of beef and yerba maté made up part of their meal. The half-boots with trousers stuffed inside are typical Gaucho costumes. Notice the horses and the level country.

A little later we visit the National Capitol of Argentina.

How are the governments of Argentina and the United States alike? Argentina and the United States both have democratic constitutions. The constitutions provide for a federal form of government. Argentina has thirteen self-governing provinces and ten territories, while we have forty-eight self-governing states. The Argentine president must be native-born, forty-five years old, a Roman Catholic, and can hold office for six years. He cannot be re-elected for the following term. How do these requirements compare with the United States?

Both countries have a two-house Congress. Argentina's senators hold office for nine years, ours for six years. Representatives are elected for four years in Argentina, two years in the United States. Our Congress convenes in January, theirs in May.

At election time in both countries there

is much excitement. There are speeches and meetings and much campaigning. In neither country does democracy work perfectly. But in both of them the ideal is to have a government of the people, by the people, and for the people.

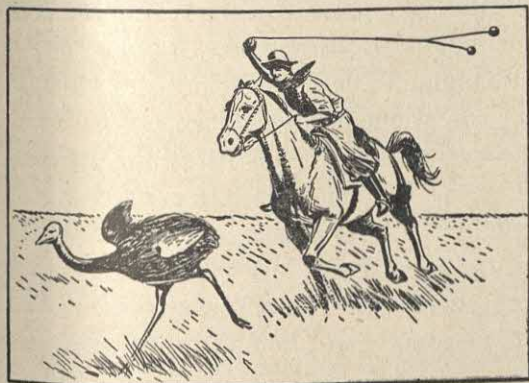
Who were the Gauchos (gou'chōs)? While we are in Buenos Aires, it seems that nearly everyone is singing a song about "a Gaucho, tall and strong." We soon find out that songs and stories and plays about the Gauchos are favorites with all the people. For the Gaucho was the cowboy of the Pampas in the early days of Argentina.

When the Spaniards first came to Argentina there were neither horses nor cattle, only the guanaco (gwä·nä'kō), or wild llama, and the rhea (rē'ā), which looks somewhat like an ostrich. But not many years passed until Spanish horses, sheep, cattle, and goats were grazing on the Pampas. Their numbers increased enormously. Soon immense herds of half-

wild horses and cattle were roaming over the plains. They belonged to anyone who could catch them. For 300 years the horses and cattle were preyed upon by Indians, by Spaniards, and by Gauchos, who were part Spanish and part Indian.

The Gaucho was a nomad, following the herds, living a carefree, exciting life upon the open plains. When night came, he slept wherever he was, with his poncho for a blanket. If he grew hungry, he lassoed a wild cow with his sixty-foot rawhide lariat. He cut off a piece of his favorite meat and left the rest of the carcass to rot in the sun. He was likely to save the hide, for it was worth a few pennies as raw leather.

For sport he hunted the rhea with his *bola* (bō'lā). This was a strange weapon made of two, or sometimes three, iron balls tied together by means of rawhide thongs. If accurately thrown, the bola could wind itself around the legs of a running rhea and send it tumbling head over heels.



The Gaucho uses the bola to catch a rhea.

By 1800 there were 80,000 Gauchos roving the Pampas. Few of these adventurous Gauchos remain. But their picturesque costume of wide-brimmed hat, colorful shirts, loose-fitting breeches, and

high boots is still worn by ranch workers.

Who are the Argentines? After winning its freedom, Argentina began to grow in the same way the United States was growing—through immigration. At first there was only a small trickle of new-



This map shows the number of Europeans that have immigrated to Argentina in the last fifty years.

comers, and most of these were from Spain. But by 1870 immigrants were pouring into Argentina by the shipload. In the last 50 years more than 2,000,000 Italians, 1,150,000 Spaniards, 200,000 Frenchmen, 50,000 English, 50,000 Germans, 30,000 Swiss, and 21,000 Belgians have immigrated to Argentina. Today ninety-eight per cent of the people are of unmixed European descent. The other two per cent are Indians, mestizos, or Negroes. How does this compare with the Latin-American countries we have previously visited?

These immigrants were not fortune seekers. They were industrious folk, willing to work hard to turn the grassy plains into rich farming lands. Most of them arrived by way of Buenos Aires. In great high-wheeled oxcarts they made their way out to the plains. The beginning of this era was almost like that of the covered-wagon days in our own country.

Some of the newcomers rented land from the Spanish landholders or farmed it on shares. Others settled in little colonies—the English in one place, the Germans in a second place, and the Italians in a third. Some of these colonies remain German or Italian or English to this day, the people still speaking their mother tongue and living much as their ancestors did in the old country.

In the United States our fine public schools have made most of our immigrants or their children into Americans. But in Argentina and other countries of South America, schools were often lacking outside the large cities. As a result the foreign communities in these countries each set up their own schools. The children learned the language of their parents and the history and ideals of the lands from which they had come.

Some of these communities have caused the various governments of South America much concern. The governments have wondered if the inhabitants of these villages would be loyal in time of war to their new country or to the old.

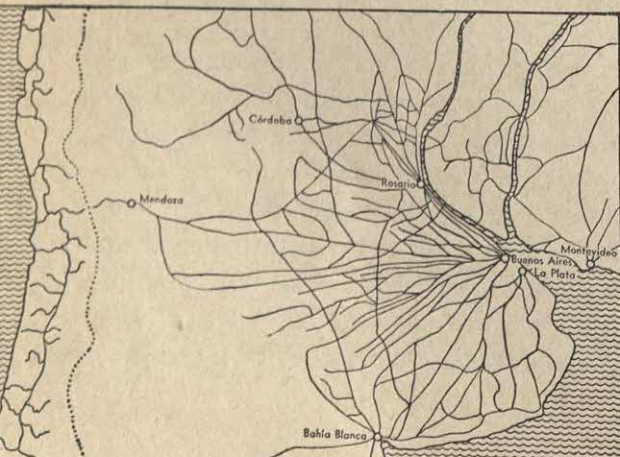
Unfortunately, some of these people seemed to have more love for the country they had left behind than for the one to which they had come. As a result several countries of South America have recently

adopted laws requiring that all schools be taught in the official language of the land—Spanish or Portuguese.

What are the Pampas? While in Buenos Aires, we pay our respects to the ambassador of our country. He asks us if we have visited an *estancia*, or ranch on the Pampas. When we reply that we have not, he picks up a telephone and makes arrangements for us to be the guests of his good friend Señor Toral, who owns a large estancia about 100 miles west of Buenos Aires in the Pampas or “plains” region. We had a glimpse of this region while flying to Buenos Aires. The Pampas cover 250,000 square miles of rich grassland in the heart of Argentina. Really to know Argentina, one must know the Pampas.

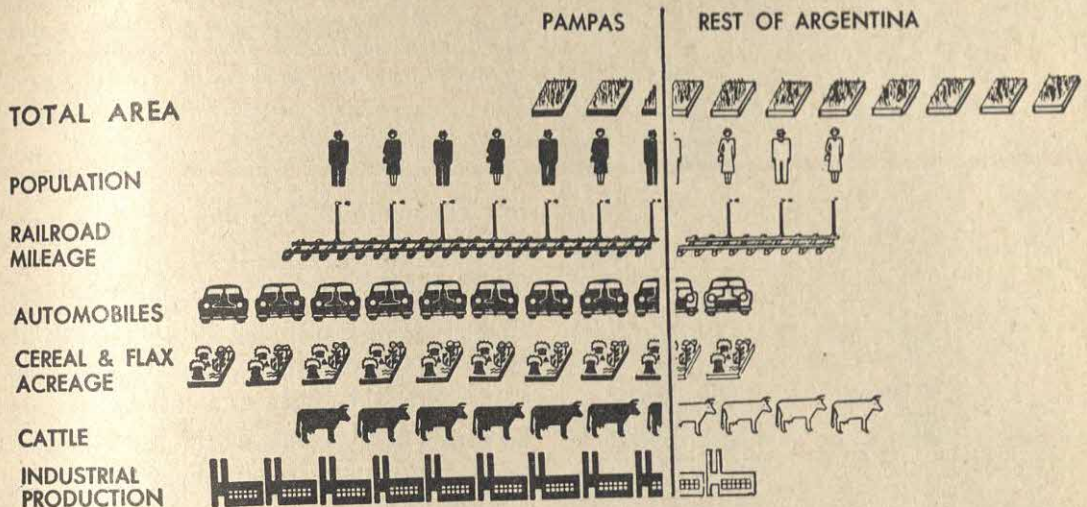
We could drive out to the estancia, but are told that the roads are rather dusty. So we decide to take a train. Argentina has a very good railroad system. In fact almost half of all the railroad mileage in South America is in Argentina. We leave Buenos Aires from the mammoth *Constitution Station* on a streamlined Diesel-electric flyer, which is air-conditioned and modern.

Once out of Buenos Aires and its suburbs, we travel mile after mile across level farm land. In many ways it reminds us of our own Middle West, except that there are few rivers or streams. And only around farm homes do we see trees.



The great fan of railroads spreading out from Buenos Aires shows the extent of the Pampas. Compare this network with the single line of railroad in Chile. Compare this railroad map with a similar map of Chicago.

THE ROLE OF THE PAMPAS IN ARGENTINE LIFE



Each symbol represents 10% of total in each row

Pictograph Corporation

The Pampas region is really the heart of Argentina. The Pampas cover approximately the area extending 350 miles from Buenos Aires in all directions into the interior of Argentina. Here is most of Argentina's cultivated land, with 75 million cattle, sheep, horses, goats, hogs, and mules. Buenos Aires is connected with the region by a vast network of railways, highways, and telephone lines.

Herds of cattle, horses, and sheep, graze on spacious pastures. Here and there are vast fields of alfalfa, wheat, or corn. Though the Pampas occupy a little less than one-fourth of Argentina, they are the "breadbasket" of the nation. Four-fifths of the cultivated land of Argentina is in the Pampas. Almost two-thirds of the cattle are raised here. About three-fourths of the people and most of the railroads are also found in this region. With deep, rich soil, a temperate climate, sufficient rainfall, a plentiful labor supply, and adequate transportation, the Pampas make one of the world's finest agricultural regions.

At a little station out on the Pampas we leave our train and find a servant from the estancia awaiting our arrival.

Then comes one of our greatest surprises. We are to ride out to the estancia—a distance of about twenty miles—on a narrow-gauge railroad belonging to Señor

Toral himself. Off we go, our little Diesel engine chug-chugging along a very wide, dusty road.

We are, of course, filled with questions. Why does the estancia need a railroad of its own? "That is an easy question to answer," replies our guide. He points to the roadway beside our tracks. "You can see that it is not paved. In all the Pampas there is no stone or gravel. We cannot build good roads without suitable materials. So in Argentina we have few hard roads. Most of the people use the dirt roads. But you can imagine what happens to them when it rains. They are impassable.

"Our wagons are built with great high wheels so they will not get stuck. And the roads are built very wide—200 or 300 feet so that the wagons can go around bad spots. But when the weather is bad not much hauling is done. Besides, such hauling is expensive. It used to cost us



Most of Argentina's packing plants, or frigoríficos, are owned and operated by American companies. They are modern, up-to-date in every way, and in normal times send thousands of tons of beef to Europe every year.

Courtesy Swift International

in a car made in Detroit. Soon we come to a huge herd of Shorthorn cattle. Señor Toral informs us that in the old days most of the cattle raised in Argentina were of poor quality. Nobody cared, because only the hides and tallow were in great demand. But when refrigeration came into use, fresh meat could be shipped to all parts of the world. Cattle raisers at once made plans to improve the quality of their stock. Argentina's herds became a source of great wealth. Almost overnight the cattle raisers became millionaires. Today every owner seeks to raise the finest cattle possible, for the best grades bring the best prices in the world markets.

Most of the cattle to be shipped abroad are sent to packing plants near Buenos Aires. These plants are called *frigoríficos* (frē'gō·rē'fē·kōs), or "freezing plants." Several of them are owned by American companies. They are very large, some greater in size than any packing plant in Chicago.

The *frigoríficos* are very efficient. Forty-five minutes after the cattle enter the slaughterhouse, the sides of dressed beef are on their way to the cooling rooms to be frozen or chilled. Later this beef is placed in the refrigerated holds of ocean steamers and shipped to Europe.

What crops are grown on the estancia? With so many thousands of cattle, sheep, and hogs, the estancia must raise a great deal of stock feed. We see an alfalfa field a mile square. There are also huge corn-

more to haul our wheat from the estancia to the railroad than it did to ship it from Buenos Aires to Europe."

In about half an hour we arrive at a palatial country home set back within a grove of trees. Not far away we see numerous barns and sheds and outbuildings. Several windmills are turning in the breeze.

At the house we are met by Señor Toral, a most gracious host. He speaks to us in perfect English, welcoming us to his estancia. Later we learn that, like many rich landowners in the Pampas, our host has been educated in England.

Before long we are again riding out over the fields of the estancia, this time

fields, acres of flax, and field after field of wheat.

Our host tells us that not much of the corn is used for feeding hogs, as is the case in our Middle West. The people of Argentina do not eat much pork; they prefer beef. As corn is a product that ships well, most of Argentina's crop goes to Europe to be used as food for human beings. Argentina is the world's greatest exporter of corn.

But of all the crops, wheat is the most important. Argentina is one of the world's three leading exporters of wheat. She exports two thirds of her entire crop.

The flax grown in Argentina is not grown for its fiber but for its seed, which is called linseed. Argentina furnishes two thirds of all the linseed used in the world. The seed is used to make linseed oil for paints and also for the manufacture of linoleum.

Years ago hundreds of laborers came from Europe every summer to help harvest these crops. But now American tractors, combines, corn pickers, and other farm machinery have made this extra help unnecessary.

Back at our host's home we are im-

pressed by the richness of its furnishings. Everything that wealth can buy in the way of furniture, rugs, draperies, and pictures is to be found in the spacious rooms of this house. The walls of one room are covered with the ribbons and prizes won by the estancia's livestock at fairs and expositions.

Not far from the owner's home is another fine house. The manager of the estancia lives in it. He has been trained in an American agricultural college and uses the most scientific methods in operating the estancia.

How do the workers live? Most of the land of our host's estancia is farmed by sharecroppers. They work from 200 to 1,000 acres each, receiving as their share half of all the crops they raise.

Señor Toral points to some sheds. Here his sharecroppers live. We walk over to one and find that it is built of adobe and has a floor of dried mud. The roof is made of grass. Three small rooms furnish living quarters for the parents and their eight children.

Outside the door are four or five cots. During the summer this family usually sleeps outdoors. Near by the mother is

Most of the sharecroppers in Argentina live in crude mud huts, thatched with grass from the near-by plain. This family must get along on very little, for its income is very small.

Ewing Galloway



cooking food over a charcoal fire. In her cook pot the entire meal is being prepared. First she puts a piece of meat into the pot. After boiling the meat awhile, she adds some vegetables; and, last of all, rice or spaghetti. When the food is done, the rice or spaghetti will be served first; then the vegetables, and finally the meat. When the family has visitors, roast meat also is served.

We learn that most of these sharecroppers are very poor and own nothing but the tattered clothes on their backs. A few are more prosperous. They may own a four-wheeled wagon, or a car, or even have their own tractors and combines for harvesting grain.

The common people of Argentina own little land, because most of it was taken up years and years ago by the early Spanish settlers. Some of these estates contained thousands upon thousands of acres. Only in the last few years have some of these estates been broken up.

How does Argentina's school system compare with our own? In the late afternoon we say good-by to our kind host and ride back to Buenos Aires in the twilight. Returning on the train, we have a pleasant conversation with a schoolteacher from Buenos Aires. He is very proud of Argentina's school system and tells us that it compares favorably with that of our own United States. He does admit, however, that not all children in Argentina go to school. Except in the few large cities, there are few schools for the children of poor people. Those parents living in the rural regions who can afford to do so, send their children to the city for their schooling.

Of what value is Patagonia? Ferdi-

nand Magellan was the first European to explore the cool, dry, wind-swept coast of southern Argentina. Magellan discovered this region in 1520, during his voyage around the world. Finding some giant footprints in the sand, he named it Patagonia, or "land of big feet."

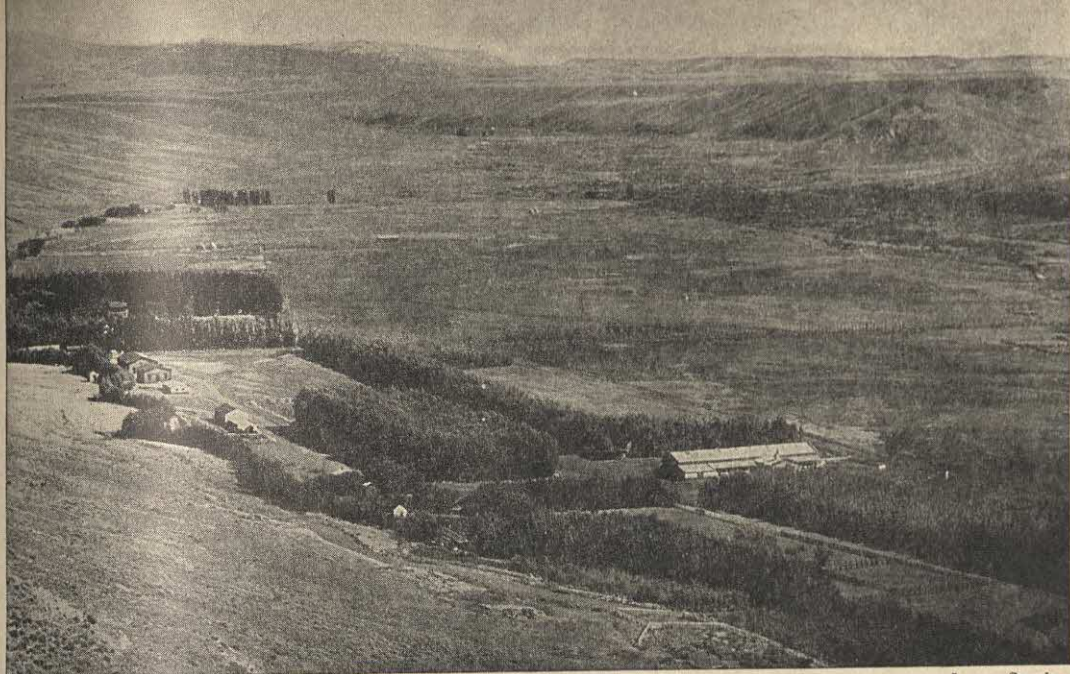
Patagonia is a desolate land, partly in Argentina, partly in Chile. The semiarid plains roll on for miles with never a tree. The winds blow so hard that even the small shrubs seem to have difficulty clinging to the parched soil. Only in southern and western Patagonia, on the slopes of the Andes, are there heavy forests.

Although Patagonia includes one fourth of Argentina's 1,079,965 square miles, it has less than 15,000 inhabitants. A few of these are Indians. Most of the others are Welsh, Scotch, and English. Their ancestors were sheep raisers back in the British Isles, and so they are sheep raisers here. Many of their ranches are very large. One ranch covers 10,000 square miles, but only 100 men work on it. Most of the sheep on these ranches are raised for their wool, not for meat.

Patagonia has one other product of value, petroleum. Not much oil is produced there yet, but in a country where coal is scarce every little bit of oil helps.

What is quebracho (kâ·brä'chō)? From the southern end of Patagonia to the semitropic lowlands of far northern Argentina is 2,200 miles. This northern region of grassland and forest is called the *Gran Chaco* (grän chä'kō). In it are impenetrable thickets and some of the hottest spots in the world.

The most valuable product of the Gran Chaco is the *quebracho* or "break-ax" trees. The wood of these trees is very



James Sawders

Wind-swept Patagonia is an unpleasant place in which to live. It is always cold. There are hundreds of miles of rolling plain where there is neither tree nor shrub. Around the ranch houses, stands of trees have been set out as windbreaks.

hard and durable. It is one of the heaviest woods known, so heavy that it cannot float on water. It is used for telephone poles, fence posts, and railroad ties, because it does not decay, and insects cannot harm it. But most of the quebracho logs are sent to factories. Here an extract called *tannin* is taken from the wood. Tannin is used in tanning hides to make leather. The United States uses millions of dollars worth of tannin every year. Argentina produces three fourths of the world's supply of quebracho wood.

Other valuable products of the Gran Chaco are lumber and charcoal. Because coal is so scarce, charcoal is very essential. We remember that food is cooked and even living quarters are heated by charcoal in Buenos Aires. How do these wood products reach their markets?

Why is Argentina an important commercial nation? Argentina is among the first ten nations of the world in value of

foreign trade. In the Western Hemisphere only that of the United States is greater.

What are some of the products that make up Argentina's exports? Most of them are the products of her farms and forests. In normal times wheat is the most valuable export, followed by meat, corn, flour, wool, linseed, hides, and tannin. Canada is the only other country in the world that exports more wheat. Argentina leads the world in the export of beef and linseed. Some years it rivals New Zealand in the sale of mutton.

These products are shipped from several ports. Buenos Aires is, of course, the largest, but others, especially Rosario (rô·sä'rê·ō), Argentina's second largest city, and Bahía Blanca (bâ·ě'ä bläng'kä) are growing rapidly. On what river is Rosario situated? What should we expect some of the exports to be from this point? Bahía Blanca has the finest natu-

ral harbor in Argentina. What besides oil might be shipped from this port?

Another reason for Argentina's importance as a commercial nation is the extent and value of her *imports*.

Down at the docks of Buenos Aires we see giant electric cranes unloading automobiles and tractors. Huge bales of textiles, quantities of iron and steel goods, chemicals, and machinery are being taken off the ships. Some boxes contain fuels and lubricants needed to run the machinery. The following countries share in supplying most of Argentina's imports:

United Kingdom.....	20%
United States of America.....	17%
Brazil	7%
Belgium	6%
France	5%
India	4%
All other countries combined..	41%

When we ask ourselves why Argentina is such an important commercial nation, we can easily find the answer by thinking back over the things we have seen during our visit there.

1. We first remember that Argentina has the soil and climate to produce large crops, more than can possibly be consumed at home.

2. Argentina uses modern farming methods and modern machinery to help produce farm products cheaply.

3. She has an abundant supply of labor to grow the crops.

4. Her main agricultural district is near the sea, and therefore she has access to all the markets of the world. How does Argentina compare with our Middle West?

5. She has a modern transportation system with which to move her crops to market.

Will Argentina become an important manufacturing nation? Argentina has become a great commercial nation, and there are indications that she may continue to progress industrially.

The first important need of a manufacturing nation is a source of power. For 200 years the industrial world has depended upon coal for steam power. Argentina has little coal, so she is making up for it by developing sources of electric power. We learn that much electricity will be generated at power stations along the Paraná and other rivers of the highlands in the interior. Argentina is also developing her petroleum fields in Patagonia and is seeking new sources of oil.

Argentina must import certain raw materials—chiefly mineral ores—for her industries. Although she exports some tungsten, lead, and mica, she must bring in all iron, copper, and alloy metals.

Next to power and raw materials, an industrial nation needs people to work in the factories. Argentina is the only country in South America which has enough skilled workers to supply the needs of a growing industrial society.

Just before World War II the nations of Europe began looking about for neutral countries where they could start manufacturing enterprises. This plan, they thought, would provide goods for the homeland in a place where their factories would be safe from war's destruction. Nations on both sides sought to do this, and Argentina benefited by this policy. In fact, one might say that modern Argentine industry began at this time.

The postwar policy of Argentina is to continue to allow foreign firms to start new businesses. Argentinians are encour-

The harbor of Buenos Aires is always crowded with ships. Some ply the Paraná and Uruguay rivers; others carry Argentina's products to North America and Europe. Buenos Aires is a man-made harbor. It must be constantly dredged to keep the silt of the rivers from filling up the channels and the deep-water berths used by the larger vessels.



aged to invest in them; thus not only pay rolls but much of the profits of foreign investments stay in Argentina.

For many years Argentina's railroads were owned by foreign concerns. In 1946 the Argentine government obtained control of railroad companies previously British-owned. Diesel and electrically operated locomotives are coming into use. Air transportation, both passenger and freight, is also making great progress.

Argentina would like to see manufacturing increase even more. A high tariff is levied on incoming manufactured goods to encourage her own factories to meet the buying public's needs. The government thus protects home industries against foreign competition.

The great tanning industry has provided materials for a very important manufacturing enterprise: the making of gloves, purses, and small leather articles. Other native materials, such as felt and wool, are used in making toys.

Cattle raising and meat packing are Argentina's chief occupations, and from them the leather-tanning industry devel-

oped. Argentine beef, both frozen and refrigerated, goes mainly to England, being more to British taste than it is to ours. In 1930 the United States prohibited the importing of Argentine beef, as some of the cattle had foot-and-mouth disease. Efforts are being made to wipe out this disease. Canned beef was not excluded, but a shortage of tin plate for the cans has kept this product from competing with our domestic beef.

By agreement of the Combined Food Board of Great Britain, Canada, and the United States, Britain was given first chance to buy certain foods on the world market after World War II: so the United States agreed not to allow any Argentine beef to be sold here.

In what way is Argentina a competitor and in what way is she a customer of the United States? Argentina's rich farm lands, like ours, are in a region of changing temperatures. Both countries produce more wheat, corn, and meat than they can consume at home. Both of the countries sell their surplus in Europe or elsewhere. We are therefore competitors.

Although Argentina and the United States are competitors in certain kinds of farm produce, they are also good customers of one another along other lines.

Trade between Argentina and the United States is increasing. The trade treaty signed in 1941 is having good results. Under its terms Argentina agreed to lower its tariff on imported goods manufactured in the United States, and the United States agreed to lower its tariff on Argentina's products. We are buying nearly all Argentina's linseed oil, much of its tannin and a great deal of leather. The United States is fast becoming Argentina's best customer.

Likewise, Argentina is fast becoming one of our better customers. The United States has loaned Argentina millions of dollars with which to build up its industries. Most of this money is being spent in the United States for machinery.

Farewell to Argentina. The telephone in our air-conditioned hotel rings. The clerk tells us, in very good English, that our plane leaves soon for Montevideo (môn'tă·vê·thă'ō), capital of Uruguay.

We quickly pack, and the elevator takes us down to the ground floor. As our taxi carries us swiftly to the airport, we

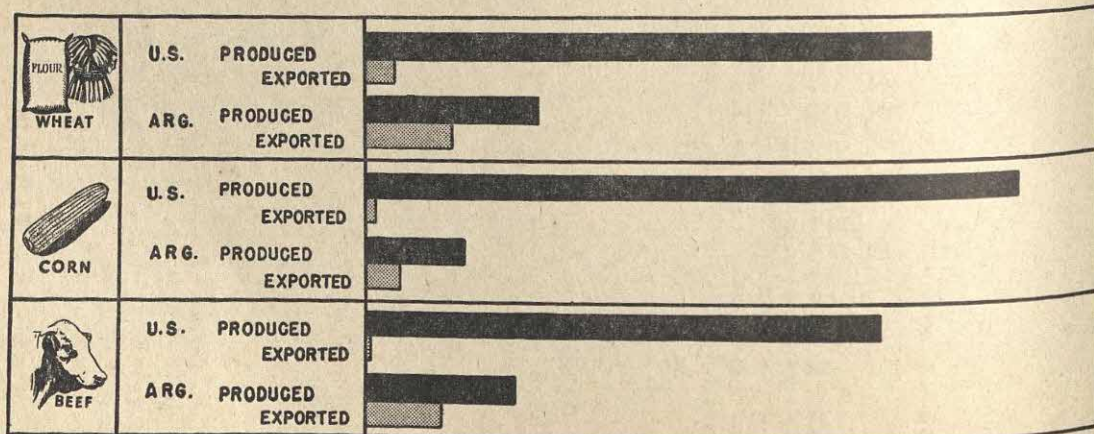
cannot help feeling that these vigorous, intelligent people on the streets of Buenos Aires would be leaders on any continent. The brisk climate and the rich natural resources of the Pampas, however, have helped to make skyscrapers and progress the natural way of life in Argentina.

We think of the tropic Gran Chaco, the wind-swept Patagonia, and the vine-clad oases of the Northwest. We see why Europeans would want to come here and why progressive Argentina would expect to be a leader in South America.

Of course, the United States does not always agree with Argentina in world affairs or even in Pan-American affairs. Often we have been on opposite sides of the "fence." Perhaps in some cases that has been because of our size and power. At other times it may have been because we were too ready to use our greater power to compel the smaller countries of Latin America to do as we wanted them to do.

But those days are fast being forgotten. Argentina needs the United States, and the United States needs Argentina. There is no reason why the two nations cannot bury past differences and henceforth be the best of "good neighbors."

Argentina and the United States are rivals in the export of agricultural products. Which country produces the most, and which country exports the most?





James Sawyers

There are more than 2,000,000 people in Uruguay, while about 20,000,000 sheep are raised. Most of them are grown for their wool. More than 8,000,000 cattle are also raised in Uruguay. Over a million each of cattle and sheep are shipped abroad as chilled or frozen meat.

URUGUAY—LAND OF EQUALITY

We are flying directly eastward to visit a people who call themselves Orientales (ō'rē-ĕn-tä'lēs), or "Easterners." The official name of their country is *The Republic East of the Uruguay*. Although its area of only 72,153 square miles makes it the smallest country in South America, it is larger than England. It also is larger than Holland, Denmark, Switzerland, and Belgium combined. And its situation between Portuguese-speaking Brazil and Spanish-speaking Argentina makes the country more important than its size would indicate.

Why is Uruguay called a "buffer state"? Our pilot tells us that the first European settlers in Uruguay were horses and cattle! Four efforts to form a settlement in this region were made by the Spaniards in early colonial days, but the Indians stopped every attempt. Then the governor of Buenos Aires took 100 horses and 100 cattle and turned them loose across the Rio de la Plata from Buenos

Aires. It wasn't long before Gauchos, Indians, and pirates were hunting the wild herds.

Later the Portuguese settled 800 soldiers and a number of families in the region. They claimed the *Line of Demarcation* took in this part of the continent as well as Brazil. But the Spaniards, with 3,000 Indian soldiers, soon took the settlement from the Portuguese. The following year the King of Spain returned it to Portugal. During the next century this territory changed hands five times.

Finally in 1825 Spain itself was driven out, and Uruguay was independent. But her wars were not over, for both Argentina and Brazil wanted this rich land. However, through the influence of Great Britain, Brazil and Argentina agreed that Uruguay should be independent.

So today Uruguay is a kind of buffer between the two powerful states of Brazil and Argentina. What are the boundaries of this "buffer state"? What would

happen if either Brazil or Argentina should try to take over this territory?

Why is Montevideo important? "I see a mountain," says the steward, laughing. We, too, see a round hill with a white tower on top. In the foreground are many tall buildings. It is Montevideo. Our steward then tells us that Montevideo is Latin for "I see a mountain."

We find that Montevideo is a modern city in every respect. Electric cranes on the pier are unloading cargoes directly from the ocean-going vessels to freight cars or warehouses. We see several large banks and thriving factories. There are many stone buildings, the most beautiful one being the *National Capitol*. About a third of Uruguay's two and a quarter million people live in Montevideo.

It is easy to see that this is the center of the economic and cultural life of the country. In addition, its climate is so warm and balmy the year round that many Argentineans enjoy their vacations at Montevideo's lovely beach resorts.

Who is Uruguay's national hero? We stop for a moment in the *Plaza of Independence* before the monument of General José Artigas (hō·sā' är·tē'gäs). He was a Gaucho who rose to fame in Uruguay's struggle for independence. At first he was a reckless smuggler, but he later fought against the Spaniards, the Portuguese, and the porteños of Buenos Aires for control of Uruguay. His enemies called him a cutthroat bandit, because his treatment of them was so ruthless. "To play on a violin" was his expression for the act of cutting an enemy's throat. When at last some of Uruguay's enemies

were driven out of the country, Artigas retired to the northwest corner of Uruguay and lived a simple life with his Gaucho and Indian followers.

An Englishman who had been robbed while in Uruguay went to Artigas and asked for damages. He found him sitting on the skull of an ox eating barbecued beef with a knife. Artigas courteously gave the Englishman some of the beef but no money. Although he was ruler over a third of a million square miles in Uruguay and Argentina, he had only three hundred dollars in the treasury!

When the superior forces of Argentina finally defeated Artigas, he went into exile. But today he is regarded by the people of Uruguay as a national hero.

Why are cattle and sheep so important in Uruguay? Uruguay is said to have the finest grazing land in all the world. The soil is fertile. There is plenty of rainfall. The climate is always mild. The broad rolling plains are covered with tall grass. There are wooded valleys with clear streams. Because of the nourishing grass, almost four-fifths of Uruguay is used for pasturing livestock.

There are more cattle and sheep per hundred persons in Uruguay than in any other country of the world. The 20,000,000 sheep are raised primarily for wool. Wool is Uruguay's most valuable export. The 8,000,000 cattle provide frozen beef, dried beef, and beef extract for foreign markets. About ninety per cent of Uruguay's exports comes from its pastures.

Cattle and sheep are so important that in many sections of the country special roads are provided for them. These driveways are fenced off from the regular roads and are usually wider. At one place

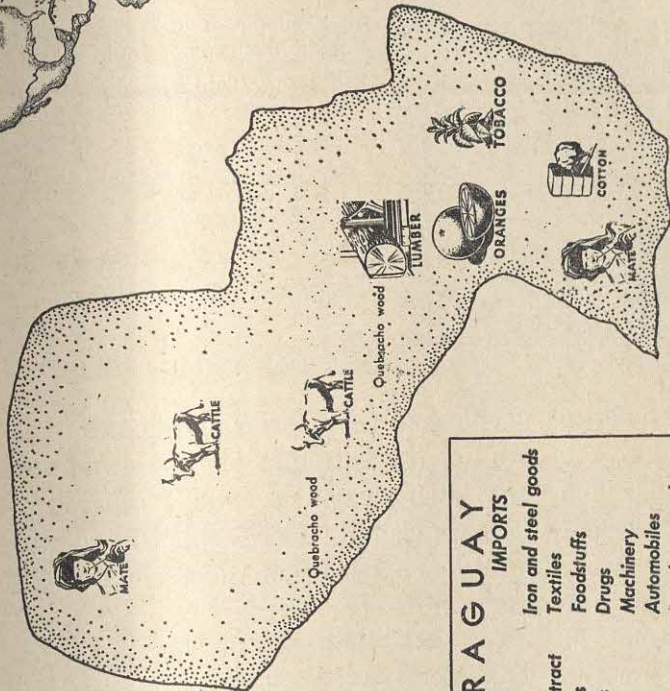
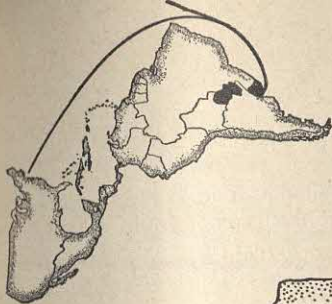
REGIONS



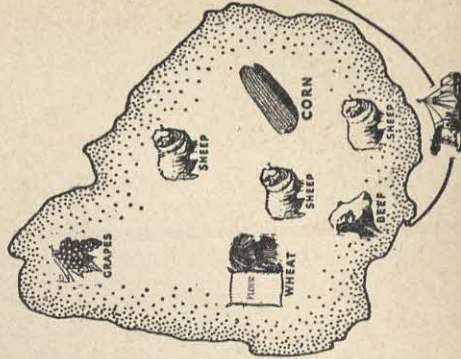
Lowlands



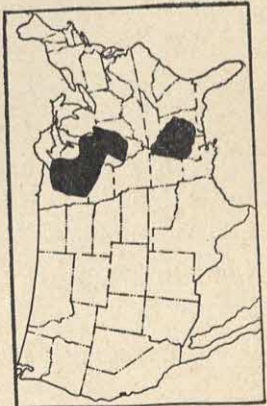
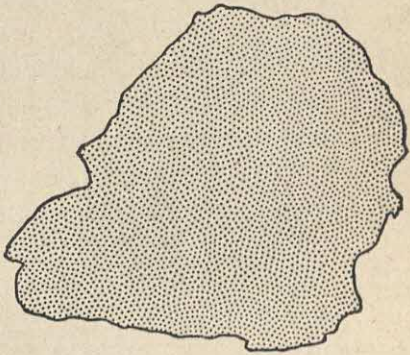
Highlands

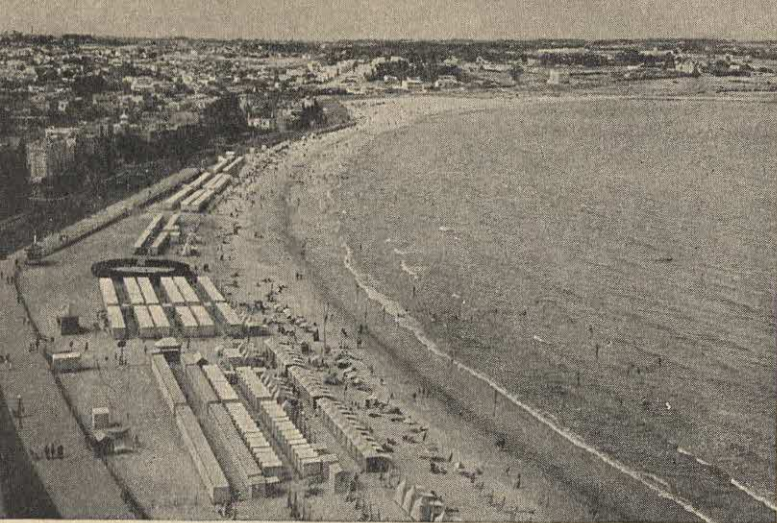


PARAGUAY	
EXPORTS	IMPORTS
Cotton	Iron and steel goods
Quebracho extract	Textiles
Hides and skins	Foodstuffs
Meat products	Drugs
Yerba mate	Machinery
Tobacco	Automobiles
Timber	Petroleum products



URUGUAY	
EXPORTS	IMPORTS
Wool	Foodstuffs
Meats	Textiles
Hides and skins	Petroleum products
Wheat and flour	Machinery
Linseed	Iron and steel goods





Montevideo is famed for its beaches. Vacationers come from all over South America to enjoy the sunshine and water.

Ewing Galloway

on our drive about Montevideo, we notice that cattle and sheep are grazing on the very edge of the city. Most of the people who do not raise livestock are connected with the industry in some other way. They may work either in the packing or freezing plants. They may buy and sell cattle, sheep, and feed, or work on the docks and piers from which large quantities of wool and meat are shipped.

Wheat, corn, flax, and oats are also grown in Uruguay. The climate and the soil are well suited to farming, but only a small part of the land is so used. Some linseed is exported, but most of the other farm produce is used at home.

An interesting fact about the farmers in Uruguay is that they own their own land. There are fewer sharecroppers and tenants than in most South American countries. The government has a plan whereby farmers can borrow money and pay for their land over a number of years. The ranches in Uruguay are quite large, and there is a movement by the government to divide some of them. Small farms and ranches are for sale to people who want to own land.

Why is Uruguay sometimes called "a land of equality?" Because so many

people own their farms and homes, there are not the extremes of riches and poverty in Uruguay that exist in other countries we visited. The people are all more nearly equal in their possessions and in their enjoyment of life.

On a tall building we see the letters ANCAP. We are told that this is a government-owned corporation. It sells gasoline, fuel, and cement at very low prices. The electricity that lights the signs, and all other electricity in the country, is made by this government-owned company. In fact, all the banks, all the insurance companies, and all the telephones are owned by the government. It owns the best radio broadcasting station, a meat-packing plant, a ballet, a symphony orchestra, a night club, and several beach hotels. It manufactures the national drink called *caña* (kă'nyä).

The manager of an American-owned meat-packing plant tells us that the government ownership is just an experiment. Our taxi driver says that it makes Uruguay "a land of equality."

Uruguay has an eight-hour workday and old-age pensions. All workers, including farm workers, are protected by a minimum wage law. The government pro-

vides the services of doctors and dentists for the poor people. Everybody gets a vacation with pay. The schools are among the best in South America.

We leave Montevideo and the Río de la Plata far behind. Soon we are flying up the Uruguay River. Before leaving Uruguay we pass over a city with the strange name of *Fray Bentos* (frī bĕn'-tōs). It is known the world over for its beef products.

Here are packing houses where beef is chilled and frozen, and a plant where

jerked beef is made. The meat is first soaked in salt water and then put out to dry. We see the strips of beef, wide and thin, hung up like clothes on a line to dry.

We see the enormous plant of a beef-extract company. We are told that it has the odor of a giant soup kitchen. The meat from thousands of cattle is boiled and boiled until the broth is thick. It jells after it is placed in cans, and when the cans are opened in hospitals and homes the beef extract again is made into delicious broth.

PARAGUAY—AN INLAND COUNTRY

What does the map tell us about Paraguay? Our flight takes us across all three of the Plata River countries: Argentina, Uruguay, and Paraguay (pär' ä-gwā). Paraguay is one of the smaller countries of South America. It is slightly larger than our state of California. Is Paraguay a lowland or highland region? Between what two regions of climate is it divided? Paraguay is separated into two parts by the Paraguay River. The part to the west is in the Gran Chaco. What other countries own part of the Gran Chaco?

In many ways Paraguay is a delightful land. The climate is mild, the soil is rich, and the rainfall is plentiful. With an orange grove, a few cows, and a garden, a family can live comfortably with little work. But despite these advantages, Paraguay has not made much progress. Let us see why the people have not been able to take advantage of the riches that nature has bestowed upon their country.

Why is Paraguay not a more progressive country? We remember that the early Spanish explorers wanted gold and

other precious metals above all else. Agricultural lands were of little interest to them. It is therefore surprising that Paraguay, although 1,000 miles from the coast, should have been settled even before Buenos Aires became a successful village.

But our maps again give us the answer. The Spaniards were looking for an easier route to the riches of Peru. And at first the Paraguay River seemed to be the answer. A settlement was made at Asunción (ä-sōon'syōn'), which ever since has been the capital of this region.

Being so far from the Atlantic coast, Paraguay was virtually self-governing even in colonial times. When the other South American provinces declared their independence, so did Paraguay. One of its early leaders was a lawyer named Francia (frän'sê-ä).

Dr. Francia remained the supreme ruler of Paraguay for twenty-seven years. He wanted the people to call him *El Supremo* (ĕl sōō-prā'mō). He took away the properties of churches and rich men. He punished his enemies with the utmost

cruelty. He decreed that all private trade with foreign countries must cease. Paraguay became an isolated as well as an inland country. Was this good for Paraguay?

The Indians so feared him that his title was spoken only in a whisper. When the bells rang announcing his passage through the streets of Asunción, the inhabitants had to hurry indoors. If anyone was on the street when El Supremo passed, he had to lie flat on the ground and hide his face.

Yet Dr. Francia kept peace and saw to it that the Indians had food, shelter, and clothing. The manufacture of leather goods, furniture, and cotton goods was begun. Farming was made more profitable. When locusts ate up the crops one year, Francia commanded that seed be planted a second time. In this way it was learned that the mild tropical climate and the fertile soil of Paraguay could produce more than one crop a year.

A few years after Francia's death the reins of government passed into the hands of another despotic ruler, Francisco Lopez. To this covetous, bloodthirsty, foolish man can be traced many of Paraguay's woes.

Lopez wanted more land for his country and tried to take it by force. It was not long before his tiny nation was at war with Argentina, Brazil, and Uruguay. The battle cry of the Paraguayans was "conquer or die." Lopez looked on defeat as a crime. He executed or tortured army officers who were defeated. Each soldier was instructed to kill any companion who deserted or surrendered. He even had his own mother flogged, when he thought her disloyal.

When Paraguay was finally defeated, one half of her people were dead of disease and famine. Only half-grown boys and women remained in the army. Nearly all the men had been killed. It is said that at the end of the war there were four women in Paraguay to every man.

It took the country many years to recover from that war. Then when she had just about recovered, she entered another war, this time with Bolivia over the boundaries of the two countries in the Gran Chaco.

For three years the two countries struggled. The war finally ended because both sides were too exhausted to fight any longer. Neither country had gained what it wanted. Once again Paraguay was



Asunción is Paraguay's capital and largest city. The Spaniards founded this city about 1535 while looking for a route to the riches of Peru. This city is an important river port.

Ewing Galloway

All over the southern part of South America the people like to drink yerba maté, a tea made from the leaves of a small tree that grows in the Gran Chaco. The tea is made in a gourd and sipped through a silver straw. The gathering of yerba leaves is an important industry in Argentina, Paraguay, and Brazil.

Severin—Black Star

hopelessly in debt and her population stricken with poverty and disease. Few of the inhabitants of Paraguay today are able to read or write.

So we see that it is not enough that man possess good land and favorable climate. He must know how to make wise use of these gifts of nature if he is to prosper.

What are some interesting sights to be seen in the capital of Paraguay? Our only stop in Paraguay is at Asunción. With a population of about 150,000 it is Paraguay's largest city. What an interesting old place it is! The houses are pink, green, yellow, and white—with here and there a blue one. The flowers are gorgeous. Orange trees line the street. It is said that long ago a priest brought seeds of the orange tree from Spain. Today the orange is the most common tree in this part of Paraguay. Even the livestock eat oranges!

As we walk down the main street, we see many strange sights. Here come two women from the country, their bare feet "slap-slapping" on the sidewalk. Like most people of Paraguay they are mestizos, part Indian and part Spanish. Each one carries an enormous basket on her head and smokes a huge black cigar. We are told that nearly all the Indian women here smoke cigars.

Asunción is important for two reasons. First, it has been the capital of Paraguay



for 400 years. Second, it is the trade center of the nation. Large river boats from Montevideo, Buenos Aires, and Rosario come north as far as Asunción to exchange cargoes with the smaller boats which ply the rivers north of this city.

How do the Paraguayans earn a living? Almost all the population of Paraguay lives east of the river, on great cattle ranches. The cattle are mostly of the longhorn breed which once roamed the plains of Texas. The others have humps, being descended from the zebu cattle which were imported from India, because they thrive in hot regions and are able to resist the many diseases found there.

Cotton is the country's most valuable commercial product. Tobacco is grown for home consumption. At the pier we see women carrying great baskets of oranges on their heads and loading them on a river boat.

Another product of Paraguay is a very fine lace. Our guide shows us a lace collar that took one woman six months to make. It is as fine as a spider web. For her work she received only a few cents a day. Centuries ago the Jesuits taught the Indian women to do this kind of work.

In South America, the people drink a tea called yerba maté (yěrbä mä'tä). When we taste it, we find it very bitter. This tea is made from the leaves of a small tree that looks like holly or laurel. It grows wild in Paraguay and the neighboring regions of Brazil and Argentina.

Thousands of people make a living gathering these leaves. The leaves are cured over a low fire and pounded to a powder. A little of this powder is placed in a gourd, and boiling water added. In a few minutes the tea is ready to drink. Wherever we go, we see men and women, boys and girls, drinking this tea through a reed or silver sipper.

To the west of the river, in the Gran Chaco, there are a few farms and ranches along the rivers. But there are still thousands of square miles whose only inhabitants are Indians. As in the Argentine section of the Gran Chaco, the main product is quebracho. This tree is very plentiful and for years has furnished one of Paraguay's chief exports.

What is likely to be the future of Paraguay? Paraguay has many natural advantages, as we have seen. She also has some handicaps. Her isolation is one. Others are the facts that most of her business is operated by foreigners and that much of her good cattle land is owned by Argentineans.

But with better rulers, more interest in education, a greater control of disease, and a continuance of peace perhaps Paraguay can soon overcome her handicaps and begin to enjoy the prosperity which her natural advantages afford.

YOUR ACTIVITY PROGRAM

Argentina, Uruguay, and Paraguay are quite different although they lie in much the same geographical area. The differences are due mainly to historical causes. This activity section will help to make clear the differences and the likenesses of these countries.

Solving the Problems

A. Recognizing the Problems

1. Write the twenty-nine problems of Unit 7 in your notebook.
2. How many of the problems are about Argentina? How many are about Uruguay and Paraguay? Does size have anything to do with the importance of a country? Discuss this.

B. Gaining the Understandings

1. Write the numbers corresponding to the following statements on a separate piece of paper. Place a plus sign (+) after each number that represents a true statement and a minus sign (—) after each number that stands for a false statement.

1. The "River of Silver" or Rio de la Plata was named by Columbus.
2. Argentina is almost as long as Chile and lies mostly in an equatorial region.
3. A great many Italians live in Mendoza.
4. The city of Tucumán is noted for the growing of sugar beets.
5. One reason why Buenos Aires became important was that it could carry on trade both by sea and by river.

6. The president of Argentina cannot be re-elected for the following term.
7. Gauchos were the cowboys of Argentina.
8. Ninety-eight per cent of the inhabitants of Argentina are mestizos.
9. The Pampas cover 250,000 square miles of grassland in the heart of Argentina.
10. Argentina uses practically all the corn it grows for feeding hogs.
11. The farm workers of Argentina are highly paid and progressive.
12. Argentina has a good school system in the cities.
13. Patagonia is noted for its crops of strawberries.
14. Quebracho is a tree having very hard wood that yields an extract called tannin.
15. Argentina is fast becoming a great manufacturing nation.
16. Argentina raises many of the same crops that we do.
17. Uruguay changed hands between Spain and Portugal many times before it gained independence.
18. Montevideo is a quaint, sleepy, old city.
19. Uruguay's national hero was José Artigas.
20. There are more sheep than people in Uruguay.
21. Uruguay is a very backward country.
22. Paraguay has a cold, disagreeable climate.
23. Paraguay is a progressive country that has long enjoyed peace and good government.
24. Asunción, the capital of Paraguay, is a picturesque, interesting city.
25. The people of Paraguay make a living mainly by raising cattle, cotton, and yerba maté.
2. Make an outline of the main understandings of this unit and their subpoints.
3. Be sure you know the meanings of the following words:

bola	frigoríficos	yerba maté
tannin	estancia	buffer state
quebracho	Pampas	rhea

Enriching the Understandings

Do as many of these interesting activities as you have time for.

1. Make a relief map of Argentina out of moistened flour and salt, showing the vast lowland plain with its river systems and the Andes Mountains in the west.

2. Make a colorful design suggested by the fruits grown in Argentina's garden of the Andes at Mendoza. Use this for a page in your notebook. Perhaps your art teacher will help you.

3. Find pictures of Gaucho costumes and make an exhibit to show to the class.

4. Get a railroad map of Chicago or New York and compare it with the map of Buenos Aires on page 196.

5. Make a cigar-box model of a high-wheeled wagon of Argentina and compare it with the old ox-drawn Conestoga wagons used by our pioneers.

6. Visit a meat-packing plant if you are near one, and find out how meat is shipped into or out of your town.

7. Find out something about the sharecroppers on cotton plantations in our South and compare their lives with the sharecroppers in Argentina.

8. Get a piece of quebracho, or of some other very hard wood, and compare it in weight with a piece of balsa wood.

9. Find pictures of Montevideo, Uruguay's largest city, and paste them in a scrapbook, or on a page of your notebook.

10. Look up the names of some common objects in a Spanish-English dictionary to see how the words compare with our names for the same objects.

11. Add the stamps and coins of these countries to your collection.

12. Arrange a program of short, interesting reports based on outside reading about these countries.

Applying Your Knowledge

Find out more about past relation between Argentina and ourselves and then write a short paper telling how the United States needs Argentina and how Argentina needs the United States. You might cover some of these points:

The tariff barriers that have hindered trade.
How trade can be fostered.
What products of theirs we could use in greater quantities.
What products we have that they need.
Ways in which we can be good neighbors.

Forming Opinions and Attitudes

In your reading for this unit and in your class discussions about it, you have probably recognized several subjects about which there may be considerable difference of *opinion*. Perhaps you have also acquired some new *attitudes* toward certain matters touched on in the unit.

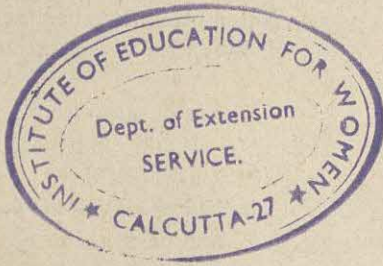
1. Carefully compare the way Argentina and Chile settled their boundary dispute with the way Paraguay and Bolivia settled theirs. In the light of what you find, state your position as to which method of settling disputes is better: *arbitration* or *war*.

2. Is war ever justified? If so, under what circumstances? Discuss these questions in class.

3. In the past, Argentina has been less friendly toward the United States than some of her South American neighbors have been. After studying Argentina's point of view in this matter, try to decide whether she has been justified in her attitude toward us.

4. One of Argentina's grievances against us has been our refusal to import Argentine meats (except corned beef). Everything considered, what course of action should our government pursue in this matter?

5. What do you think of the efforts of the Uruguayan government to improve the lot of the common people? Is this a wise policy for other South American governments to follow? Compare your conclusions with those of your classmates.





Ewing Galloway

The Iguassú Falls of the Iguassú River form part of the boundary between Brazil and Argentina. These falls are so wide that it is impossible to get them all into one picture. So much water rushes over the falls during the season of heavy rains that the little islands seen here become completely flooded. The falls are in the midst of wild and beautiful scenery.

8. Brazil—Largest Southern Neighbor

Once a week on Tuesday a plane leaves Asunción, Paraguay, for Brazil. We want to make this flight, for it takes us near one of the most magnificent sights in all the world, a waterfall nearly two miles wide. About an hour out of Asunción we notice a silvery mist rising above the trees. It is the “water-smoke” of the great *Iguassú* (ē'gwä·sōō') Falls. Here in the heart of the jungle is the largest cataract in South America. We hasten from the airport to view its amazing glory at nearer range. It is like our own Niagara Falls, but more majestic and much higher. At one place it makes a sheer drop of 210 feet; at other points the water falls in many shorter leaps. Little green islands, thousands of them, perch on the edge of the falls. The sun is shining through the silvery mist, making hundreds of rainbows.

“The Iguassú Falls could generate

enough electricity for many millions of people,” says one of our fellow passengers on the plane. He is a medical doctor from Belém (bâ·lě'n'), and his name is Dr. Fonseca (fōn·sā'kâ). Like many other doctors in Latin America, he has done part of his studying at a North American medical school. He speaks English very well. “I can tell you some other things about Brazil that may surprise you,” he continues. “We not only have one of the largest falls in the world, but Brazil is also one of the largest countries in the world. Next to Canada, it is the largest in the New World. In the Old World, it ranks after Russia and China. Brazil is so huge that it touches the borders of every other country in South America except Chile and Ecuador.

“Brazil is not only large in size. With a population of 45,000,000 people—white, red, black, and all the shades in

between—it has as many inhabitants as all the other countries of South America combined. However, three-fourths of the people of Brazil live in a narrow strip along the coast, and as a result most of the interior is uninhabited. In vast areas there is nothing but jungle, swamp, forest, or grassland. In all Brazil there are only about thirteen inhabitants to the square mile. But in most parts of the country the population averages less than one to the square mile.

"The United States may be contrasted with Brazil in other ways. Unlike the United States, most of Brazil lies in the equatorial region. The United States is the foremost industrial nation of the world. Brazil, on the other hand, is mainly an agricultural region, although less than one-fiftieth of her land is actually cultivated. It may be said therefore that Brazil is one of the largest and emptiest countries in the world.

"There is one more thing you should know about Brazil. It is one of the best friends the United States has in Latin America, and if the people of the United States really wish to be a good neighbor to Brazil, they will learn to read and speak the language of my country."

Why do the Brazilians speak Portuguese? It was an accident that brought the Portuguese sea captain, Pedro Cabral, to Brazil in 1500. Vasco da Gama, the great Portuguese navigator, had found a way to India by sailing around the southern tip of Africa. Cabral was following Da Gama's route when strong ocean winds drove his fleet westward from its course and brought it to the coast of Brazil. In the name of his king, he claimed the land for Portugal. Later

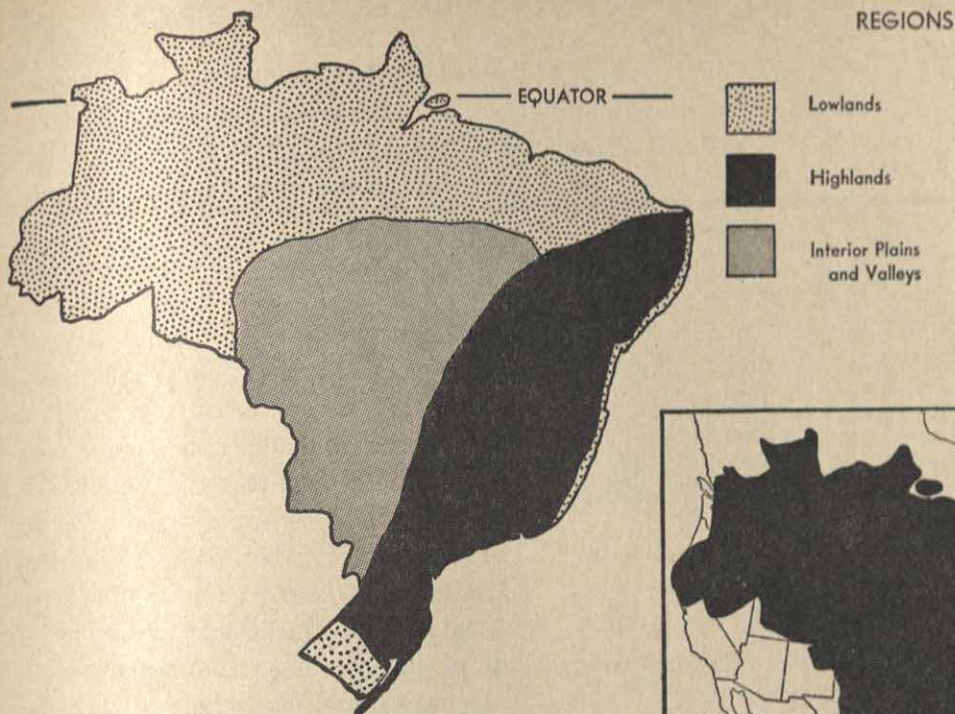
he returned and explored much of the Brazilian coastland and made a map of it.

According to the Pope's Line of Demarcation, this land did belong to Portugal. One Portuguese expedition to this region brought back logs of a rich red color from the coastal forests. From these logs was made a red dye called *brazil*. So the new country came to be called *Brazil*, or "land of brazilwood."

For a few years the Portuguese king paid no attention to his new territory. Finally he divided the coast of Brazil into strips a hundred miles or more wide and gave them to his noblemen to colonize. Neither gold nor silver was found in Brazil at first. So the people who came had to make a living by farming. Gradually the Portuguese language spread over half of South America.

Why is Brazil called a "melting pot"? When the governor of these colonies arrived in Brazil, he found a shipwrecked Portuguese sailor near São Salvador living like a king amidst his large family. The Indians called the sailor *Caramurú* (kā'rā·mōō·rōō'), meaning "big fish caught among the rocks." Caramurú had married the daughter of an Indian chief, and had had many children. Later thousands of other Portuguese men took Indian wives. So Indians and Portuguese were the first to enter into Brazil's "melting pot."

Another race came in soon afterward. The Portuguese found that the northeastern coast of Brazil was ideal for the growing of sugar. Europe was willing to take all the sugar that Brazil could produce and at good prices. At first the Portuguese sugar plantations were run with Indian labor. But the Indians



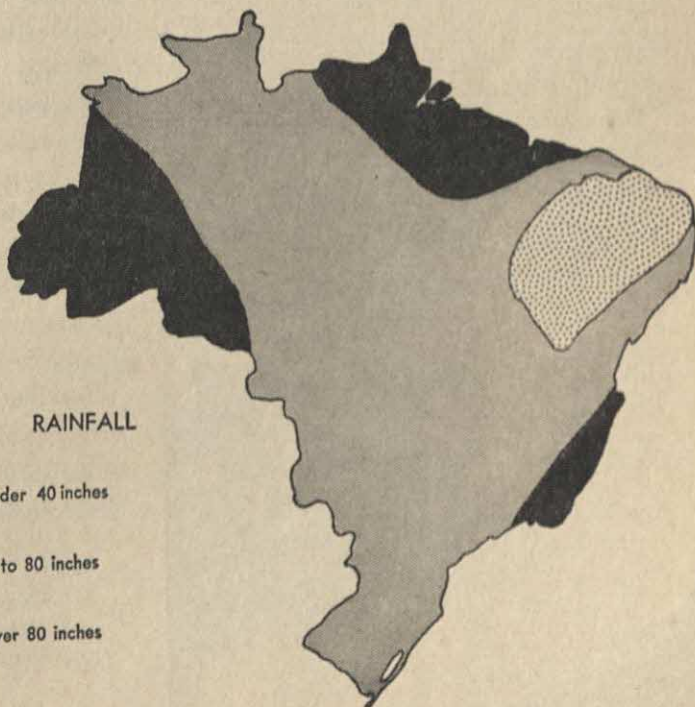
THE STORY OF BRAZIL TOLD BY MAPS



REGIONS. Brazil is a country of great variety and of many natural regions—just as many perhaps as in our own country. But for simplicity, we may divide the land into three main regions. What are they? Where are they located? Compare this regions map with the product map on page 244. What are the important products of each region?

SIZE. How does Brazil compare in size with the United States? Which is larger? In which climatic region is most of Brazil?

RAINFALL. Compare this map with the regions map. In which regions is the rainfall heavy enough to be a hindrance to agriculture? Where is the rainfall lightest?



could not stand hard work. They ran away or quickly died. So the plantation owners began to import Negro slaves from Africa, just as the Spanish planters in the West Indies did. Before long a great three-cornered trade grew up. Sugar was shipped to Portugal, where part of it was made into rum. The rum was then sent off to Africa and exchanged for slaves. The slaves were carried to Brazil. These slaves were eventually freed, but already they too had entered Brazil's melting pot.

During the last century other peoples have made Brazil their home. Over five million immigrants from Italy, Japan, Germany, Poland, and many other countries of the world have come here. Today Brazil is still a melting pot where pure whites, mestizos, Indians, and Negroes are fused into one loyal Brazilian people. The people have no race feeling such as is found in the United States. Whites, Negroes, mulattoes and Indians may attend the same schools, ride on the same cars, attend the same social gatherings, and compete for the same political offices.

What are the three main geographical regions of Brazil? "If you are interested in Brazil," says Dr. Fonseca, "you had better study your map before you go any

farther. Brazil is a country of tremendous size. And it is a complicated country, too, with broad highlands, mountains, and plains, grasslands, forests, jungles, and swamps.

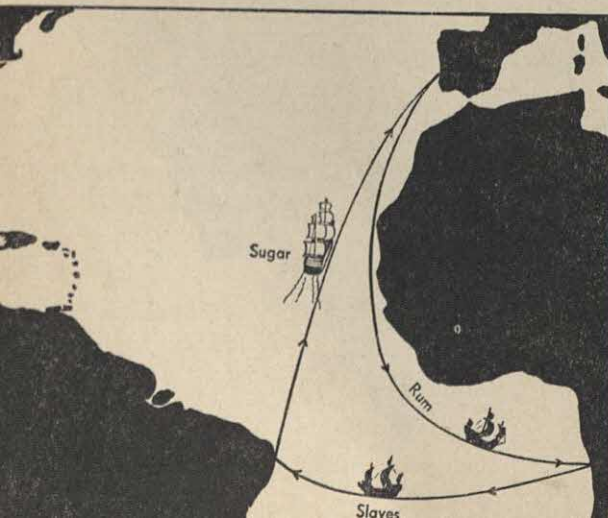
"But it is easy to remember about Brazil, if you think of it as divided into three main regions."

In the northern part of Brazil, stretching from the Atlantic Ocean west to the boundaries of Colombia and Peru is one of the great tropical lowland regions of the world. This is the Amazon River Lowlands, an area where the seasons are not alternately cold and hot, but very wet and not so wet. Why is this? It is a land of heavy rains, enormous rivers, thick jungles, and few inhabitants.

Along the southeastern coast of Brazil lies this country's most important region, the Brazilian Highlands.

Here the country's most valuable crops are grown. Here are most of her cities and most of her people. This highland is not like the high plateaus of the Andes, but more like the Appalachian Highland in the United States. A few of the mountains are as much as 8,000 feet high, but in many places the plateau is only about half a mile above sea level. Why would most of the people wish to live and work in this highland region? In what climatic region are the Brazilian Highlands? What effect does altitude have on climate?

Brazil's third main region is her interior tablelands. This area is partly plateau and partly lowlands. It is often called Brazil's "wild west."



In colonial days, New England merchants carried on a three-cornered trade in molasses, rum, and slaves between the West Indies, New England, and Africa. The same kind of trade was profitable in Brazil.

It is difficult to raise Hereford and other fine grades of beef cattle in some of the warmer regions of South America. But the ticks which infect cattle in much of this region are not dangerous to the zebu cattle, which have been imported from India. Therefore many of the cattle are a mixed European and zebu breed.

James Savaders



How do the people of Brazil's "wild west" make a living? In all of Brazil's great interior tableland there is but one railroad—one railroad to serve an area of over 600,000 square miles! This is larger than the combined area of the four largest states of the United States: Texas, California, Montana, and New Mexico.

No wonder this interior tableland is undeveloped. No wonder its population averages less than one person to the square mile. We may compare this region to our own "wild west" before the coming of the railroads. When transportation facilities are better, the interior of Brazil will attract many more settlers.

The few hardy pioneers who do live here raise food crops for their own use. They also raise cattle, especially in the south, where the climate is cooler and the grass richer. Most of the cattle are longhorns such as were formerly raised in Texas, or they are cattle that have been crossed with the zebu to produce a breed that is resistant to the cattle tick. Some of the ranches are quite large. On one ranch alone there are over 4,000,000 acres of land and 100,000 cattle.

Dr. Fonseca says that the cattle are

driven to market just as they were in our western states before the coming of the railroads. These cattle are valuable mainly for their hides. Some of these hides probably end up in Boston, where they are made into shoes.

The Brazilian Highlands. Our trip from Iguassú Falls to the southern part of the Brazilian Highlands takes only two hours. We land at the airport of the thriving city of Curitiba (kōō'rê·tē'bā).

Why is the southern part of the Brazilian Highlands becoming more important? The first settlers in Brazil built their cities far to the north, in that part of Brazil which is closest to Europe. The southern section was long neglected. Then in the 1800's Brazil offered free transportation and very cheap land to any one who would settle here. Soon settlers from all over Europe discovered the rich soil, the plentiful rainfall, and the pleasant climate. They settled in small colonies, the Germans in one place, the Portuguese in another, the Italians, the Russians, the Poles, the Austrians in still others. They were thrifty immigrants who wanted only a chance to work. And work they did. Today this region is fast



In hot lands where there is little refrigeration, the people must eat either freshly killed or dried meat. In Brazil dried or jerked beef and black beans are the staple food of many people. The beef is cut in thin sheets, salted, and dried in the sun.

Ewing Galloway

becoming one of the most prosperous in all Brazil.

The people of Brazil can find but one fault with these southern settlers. Many of them have forgotten to become Brazilians. Instead they have remained Germans or Italians or Poles or Austrians. Many of them do not even know the language of their adopted land, because their schools have been carried on in the language of the country from which they came. Brazil has recently decreed that all schools shall be taught in Portuguese. Why is this a good law?

Like their neighbors to the south in Uruguay, the people of southern Brazil raise great numbers of cattle and sheep. In the early days the cattle were killed, and the meat was dried and later sold as jerked beef.

Today modern packing plants owned by American companies prepare millions of pounds of chilled, frozen, or canned meats. Most of it goes to England.

Corn is also an important product in this region. As in our own Middle West, much of it is sent to market in the form of meat; that is, the corn is fed to hogs. The farmers also raise tobacco, rice, and many other products.

Southern Brazil is also important for its lumber industry. In all Brazil there are thousands of square miles of forests. But much of this timber is hundreds of miles from the nearest railroad, or it is of such sort that it cannot be marketed cheaply. But in southern Brazil there are fine stands of Paraná pine up to 100 feet high and as big around as a barrel. It makes good lumber. A convenient railroad carries the lumber to markets in Brazil's large cities and seaports.

Another valuable product is yerba maté. We remember that Paraguay is famous for its yerba maté, but Brazil furnishes about half of the world's supply.

In addition to the products of her fields and forests, southern Brazil also produces coal. It is not good coal, but it is the best Brazil has.

What is the "capital of coffee land"? We have left southern Brazil far behind and are flying north into the central part of the Brazilian Highlands. Below us on the hillsides stretch miles and miles of coffee trees. They thrive in the rich soil and ideal climate of this rolling region. Here in the highlands the temperature and rainfall are both moderate.

Our plane circles over the magnificent

city of São Paulo (souN' pou'loo). It is Brazil's second largest city and has a population of more than a million.

Most of São Paulo's people work in the city's factories and business houses. It is one of the largest industrial and commercial centers, and also one of the most progressive cities in South America. We find wide streets, skyscrapers, street-cars, and modern buildings of every kind. Every year the city grows larger. Coffee trading is the leading business. For this reason it is often called the "capital of coffee land."

We take a drive down "Millionaire Avenue," where the palatial homes of the coffee merchants line the street. There are so many well-kept parks and playgrounds and flower gardens that we call São Paulo a "City of Gardens." Our drive ends at the *Institute of Coffee Culture*. There Dr. Fonseca finds his old friend Senhor Dumont (sã·nyô' dō-môn'), who invites us to visit his coffee *fazenda* (fã·zẽ'dã).

A visit to a coffee plantation. At dawn next morning an American-made automobile takes us to "coffee land." We travel through cultivated forests of coffee trees set with mathematical exactness in the clean red earth. At the end of a private road is the fine old house that has belonged to Senhor Dumont's family for generations. Around it are the small, neat cottages of the workers. Attached to each house is a garden plot where the worker's family can raise vegetables and fruits. On the very large fazendas, which have many hundreds of workers, there are

a central store, church, school, hospital, and sometimes even a motion-picture theater.

What is the story of coffee? Senhor Dumont takes us first to see the young coffee plants that have just come from the nursery. They were raised from seed and are ready for transplanting. The young plants will be protected from the sun and wind and will be pruned to keep them from growing too high.

We walk out through the rows of mature trees. They are seven to twelve feet high. Senhor Dumont tells us that each worker has to take care of a certain number of trees. Not a weed or even a blade of grass is allowed to grow around them. In October the trees burst into bloom. Overnight the fazenda is transformed into a scene of dazzling beauty. By May



São Paulo is one of the most progressive and energetic cities of South America. This building would do credit to any city in the United States.

Preston Rambo—Black Star



Charles Perry Weimer—Three Lions

On some Brazilian fazendas, the coffee crop is so large that the berries cannot be carefully picked, as in Colombia or Costa Rica. Instead the coffee is rapidly stripped off the branches and caught in sacking. Later the berries are tossed in the air to allow the wind to carry away dirt and twigs.

or June the blossoms have turned into coffee berries ready to be harvested. The picking of the berries goes on for several months.

We pick some of the berries and examine them carefully. They are red like cranberries or cherries. We crush one and find inside two seeds—the coffee beans. Men on ladders are picking the ripe “cherries” from the higher branches, while on the ground, women, boys, and girls are picking from the lower branches. Great care is taken not to damage the green berries or the new blossoms.

The carload of berries is then taken to the central warehouse, where they are prepared for market. Here are huge washing vats, machines for pulping the “cherries,” and acres of concrete where the beans are spread out in the sun to dry. Workers with long rakes stir the beans regularly until they are thoroughly dry.

Then the silver parchmentlike skin holding the two parts of the seed together can be easily removed in a machine. The revolving cylinders are covered with a woven-wire mesh that removes the tough skin and polishes the beans. Next the beans are put through an automatic grading machine. The various sizes are separated and packed in large bags. These bags are then stored in the warehouse awaiting shipment. All the machinery is run by electricity.

Senhor Dumont says that coffee is grown throughout more than a million square miles in the various sections of Brazil. With ideal soil, with climate neither too hot nor too cold, with the right amount of rainfall, and with efficient methods of cultivation and so much land devoted to the crop, is it any wonder that Brazil is the world's greatest producer of coffee? Each year from sixty to

The coffee berries grow in little clusters along the branches. The two little seeds inside the berry is the coffee we use.

Courtesy National Federation of Coffee Growers

seventy per cent of the world's coffee comes from Brazil.

Because coffee is its most important crop, Brazil prospers when coffee prices are high. But when prices are low, the whole country suffers. Whether prices are high or low is determined largely by how much coffee is available. When there is an overabundance of coffee, the price drops. When coffee is scarce, the price goes up.

Several years ago Brazil produced so much coffee that the price went down, down, until it was even lower than the cost of growing it. In order to protect the coffee growers, the Brazilian government bought millions of bags of coffee and burned them or dumped them into the sea. Thus she succeeded in raising the price received for her products, but the higher prices encouraged other countries to increase their production of coffee. We remember that Costa Rica and Colombia both grow excellent grades of coffee. It was the curtailing of Brazilian coffee exports that gave these countries their chance to get into large-scale production.

Fortunately, Brazil no longer has to destroy her excess coffee. Thanks to a young scientist from the United States, there is a market for all the coffee it produces. This scientist thought of the millions of bags of coffee being destroyed. Could this coffee be used for anything besides making a drink? He set to work

The coffee beans are spread out in huge concrete drying yards. They are mixed and stirred regularly while drying.

Underwood—Stratton

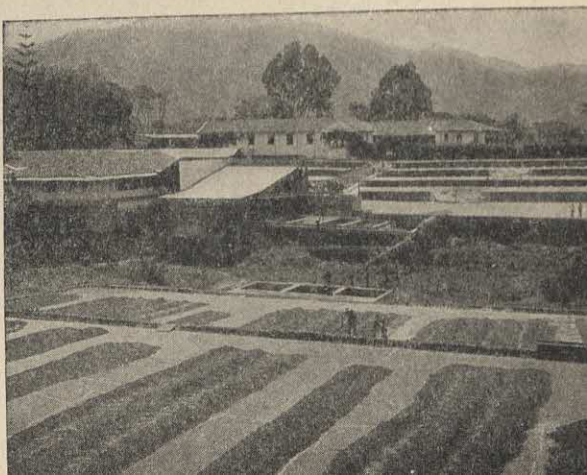


searching for another way to use coffee beans.

In a short time he discovered a method of making plastics out of the surplus coffee. He was invited by the president of Brazil to come to South America and to build a plant to make coffee plastics at São Paulo. Today this method of using surplus coffee is bringing millions of dollars to the people of Brazil.

Why is the port of Santos so important? We are told that most of the coffee from this region is sent to Santos (săn'-tōös). On the map we see that Santos is a seaport about fifty miles from São Paulo. It is the world's greatest coffee-exporting city.

Before the coffee can be sold, it has to be tested for quality. Samples of the beans are roasted, ground, and made into





Hour after hour the coffee taster smells and sips freshly made coffee, testing its aroma and taste. In this way the coffee is graded for quality. The taster seldom swallows the coffee.

Ewing Galloway

coffee. An official "taster" then smells and tastes the coffee, and grades it for quality. These "tasters" sip samples of coffee all day long, but they seldom do more than "taste."

Ships from many nations travel to Santos to take on cargoes of coffee. Those from the United States carry away almost half of the coffee grown in Brazil. More than forty ships can be loaded at the docks of this port at one time. Conveyor belts carry the bags of coffee from the warehouses along the water front into the holds of ships.

Dr. Fonseca tells us that Santos is a typical Portuguese city. It is very quaint and foreign-looking, with narrow winding streets and tall houses. Many of the houses are decorated on the outside with hand-painted pictures.

The climate of Santos is so hot and moist that many of the businessmen of the city live in São Paulo. In the morning they travel from São Paulo to Santos on the "coffee railroad" and tend to their exporting business. In the afternoon when their work is completed, they leave the heat of Santos and return to their cool homes in São Paulo.

For what medical institution is São Paulo noted? Dr. Fonseca says we must

visit the snake farm a few miles outside São Paulo. Every year thousands of Brazilians are bitten by poisonous serpents. Those who depend on "witchcraft" remedies to cure them generally die. Those who use serums scientifically prepared from snake venom can usually be saved.

The institute in which the serum is prepared is in a beautiful park where sub-tropical plants and flowers abound. We see the poisonous snakes in small rounded houses inside an enclosure. An attendant in overalls and heavy boots explains how the serums are made. Serums for small-pox and diphtheria are also prepared in



Severin—Black Star

The snake farm at São Paulo uses snake venom to make serums which save the lives of many people bitten by snakes.

the laboratories of the institute. But its snake serums are famed throughout the Western Hemisphere and are of untold benefit to humanity.

Why has cotton become an important crop in this region? Probably the greatest cotton-producing region in the world is in the southern part of the United States. There the soil and climate are just right. Moreover, long years of experience have taught our cotton growers how to raise, pick, store, and market their crop.

In good years so much cotton is raised in our South that the price of cotton falls, just as the price of coffee falls when there is more of that product than the world can use. Our government has tried to keep the price of cotton up by encouraging southern farmers to raise more of other crops and less of cotton.

This has succeeded in raising the price of cotton. But just as happened when Brazil raised the price of coffee, other countries began growing more cotton as soon as the price of United States cotton went up. And Brazil was one of the countries that began to raise more cotton. Before long she was exporting over 1,000,000 bales of cotton a year, which is about one-fifth as much as is normally exported by the United States. Cotton has become Brazil's second most important export.

Brazil produces two-thirds of all cotton grown in South America. She is the fourth largest producer in all the world.

Brazil's cotton crop is important also

Millions of large bales of cotton are stamped "BRASIL" and shipped to foreign ports each year. Raw Brazilian cotton is purchased mostly by England, China, Canada, Spain, and Japan.

Charles Perry Weimer—Three Lions

because the manufacture of cotton cloth is the largest nonagricultural industry in Brazil.

The cloth is made in fine modern mills. Much of the machinery used in these mills has been imported from the United States.

Who were the "bandeirantes"? In São Paulo we see the statue of a sturdy, simply dressed man with a sharpened stake in his hand. It is called "The Bandeirante" (băn'dâ·ê·răn'tā). He represents the intrepid, colonial prospector who blazed the trail into the far interior in search of gold and diamonds. These men tramped through the vast unknown interior of Brazil from the banks of the Uruguay to the Amazon.

They stopped at likely spots to pan river gravels for gold or to plant temporary fields of corn. They captured Indians and sold them as slaves when they could. This was an easy way to make money. They pushed the boundary of Brazil far to the west of the Demarcation Line





Next to South Africa, Brazil is the greatest diamond-producing country. Here Negroes are washing river gravel to obtain diamonds. This reminds us of the way early American pioneers panned gold.

James Sawyers

which originally separated Spanish from Portuguese territory. Some of them stayed in the interior and became farmers and ranchers. Others discovered great deposits of gold.

For what is Minas Gerais noted? The richest mines were discovered in the central part of the Brazilian Highlands. On the map find a region called Minas Gerais (mē'nās zhě·rīs'). This is the name of one of the states in Brazil. The name means "general mines." The cry of "gold" started a scramble into Minas Gerais that was as dramatic as the gold rush of '49 to California. People from the coast left their sugar plantations and went in search of the precious metal. All during the eighteenth century, gold was the most important product of Brazil.

Then diamonds were discovered, and

the king declared them to be a crown monopoly. The rich districts around the town of Diamantina (dē'ä·män·tē'nä) in Minas Gerais were fenced off as royal preserves, on which there was to be no poaching. Two centuries ago Diamantina was the greatest diamond-producing area in the world. Diamonds were so plentiful that they were used for money.

A little gold is still mined in Brazil. Far more important today are the numberless so-called black diamonds which Brazil produces. They are not the brilliant stones we see in bracelets and rings. These imperfect gems are used in industry. Their extreme hardness makes them useful as drill points and in engraving tools. The number of diamonds used in industry is far greater than the number used in jewelry.

People may dress differently and speak different languages, but at heart they are much the same. These Indians of the interior enjoy their game as much as any American enjoys hockey.

Ewing Galloway





Schostal Press Agency

At Rio de Janeiro the mountain ranges run right down into the sea. Between the ranges snuggles the beautiful city. In the center of the picture is famous Sugar Loaf. On both sides are the calm waters of the harbor—a harbor large enough to hold all the navies of the world!

Brazil is one of the richest countries in the world in mineral resources. However, most of her mining industries are still undeveloped. Brazil ranks fifth among world producers of manganese. Her undeveloped deposits are estimated to be the largest in the world.

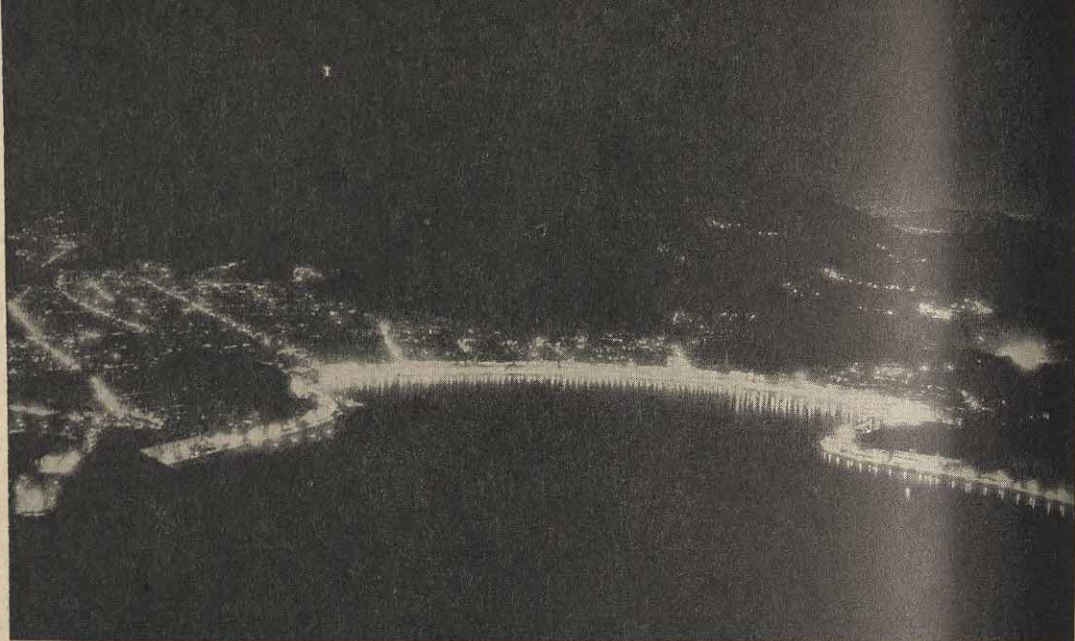
Brazil has extensive iron ore deposits—said to be nearly a fourth of the world supply. The lack of a good grade of coal, however, prevents her from becoming a leading steel producer. Even so, Brazil already makes more steel than all other South American countries together. The United States is helping Brazil build up her iron-and-steel industry.

Flying on to Rio. "Oh, you must roll down to Rio some day before you're old!" wrote Rudyard Kipling. "See Rio and die," is an old Brazilian proverb. We think of these sayings as our plane approaches Rio de Janeiro (rē'ō dā zhā·nā' rō). Below us are mountains much like the Alleghenies. Suddenly we see a

beautiful bay, out of which granite peaks rise sharply toward the sky. In a medley of flashing colors, the glittering expanse of a great city appears slowly beneath us. The tile roofs are red, and many of the houses are painted in pastel shades of blue, yellow, and green. Against a background of green mountains and sky-blue water, Rio de Janeiro makes an unforgettable picture.

Bordering along the water front for many miles is a wide boulevard lined with stately palm trees. Dr. Fonseca says that at night the lights of the boulevard circling the water's edge gleam like a sparkling necklace.

Extending inland from the boulevard, like the spokes of a wheel, are broad streets with large modern business buildings, shops, theaters, and cafés. These streets lead into the residential sections. In some places the streets seem to climb right up the sides of the mountains. Scattered about the city are many lovely



Ewing Galloway

At night Rio is a fairyland of beauty with the lights along the bay gleaming like diamonds in a necklace. High above the city is the famous statue of Christ. The outstretched arms make the statue look like a huge cross. Notice how the city runs back into the valleys.

parks and gardens, marble monuments and fountains.

A visit to Sugar Loaf. The first sight-seeing trip we take after landing in Rio de Janeiro is to the top of Sugar Loaf Rock. This is one of the huge gateposts at the entrance of the bay.

A little car moving along a cable carries us from the mainland out over the water to the summit of Sugar Loaf. This rock is more than 1,000 feet high—almost as tall as the Empire State Building in New York City.

What a clear, beautiful view we have of the bay and city from this point! Below us in the large, well-protected harbor are ships from many countries. They bring goods of every sort and hundreds of visitors to Rio, the name by which most people call the city. When they leave, they carry away the products of southern Brazil. What does our product map tell us about Brazil's exports and imports?

As we float through the air on our re-

turn trip from Sugar Loaf, a guide tells us that the first explorer to discover this huge bay thought it was the mouth of a river. As he made the discovery on a day early in January, he called the waters *Rio de Janeiro*, which means "River of January."

Back in the city we discover that some of Rio's streets cannot be used by automobiles. They are reserved for people on foot. From one side to the other, these thoroughfares are crowded with shoppers.

Coffee is served twice each day by Rio's business houses and stores, once in midmorning and again in midafternoon. Almost everyone stops whatever he is doing to take a cup of coffee. In the restaurants, coffee costs only a penny a cup.

How did Rio become the capital of the Portuguese empire? Rio de Janeiro at first was only the capital of one of the colonies. Later it was made the capital of all Brazil, because it was the gateway to the interior.

Rio de Janeiro is famous for its sidewalks. Many of them are laid in black and white mosaics in beautiful, interesting patterns.

Screen Traveler—Gendreau

Still later, in 1807, an event took place in Europe that changed the whole history of Brazil. The French army under Napoleon invaded Spain and Portugal.

"Napoleon Bonaparte may take Portugal, but he shall not enslave its royal family!" said the Portuguese Prince John. "We shall move to Brazil." The invading French army arrived just in time to see the ships, carrying thousands of the Portuguese nobility, sail away for South America.

The Queen and her noble court were welcomed with enthusiasm in Brazil. A royal proclamation named Rio de Janeiro as the new capital of the *Empire of Portugal and Brazil*. The port, which therefore had been closed to foreigners, was thrown open to friendly world trade. Public printing presses were permitted, and Rio de Janeiro's first newspaper was started. Prince John's fine collection of books and pictures made the beginning of the excellent museum and library of modern Rio de Janeiro. Schools of art, medicine, commerce, and military and naval affairs were opened. For Brazil a new era of culture and progress was initiated. John was very happy among his devoted followers.



How did Brazil become an independent empire? Finally, Napoleon was defeated and exiled from Europe. Portugal demanded that its king return. John wept bitterly when it came time to depart. However, his favorite son, Pedro, remained in Brazil.

The government in Portugal then tried to rule Brazil as a colony, as had been done before Napoleon's invasion. The Brazilians resented this. When Pedro was commanded to return to Portugal to complete his education, the people of Brazil begged him to remain with them. His answer was "I remain." January 9 is still celebrated in Brazil as "I remain

We hold our breath as the cable car that takes us to the top of Sugar Loaf sways in the breeze. But the sight from the summit is a wonderful reward for the trip.

Paul's Photos



day." A Council of Representatives of the various provinces was called, and Pedro was given the title of "Perpetual Defender of Brazil."

Portugal regarded this as an act of rebellion and threatened to punish the offenders. News of the danger reached Pedro. Waving his hat in the air, he shouted "Independence or death," and at once spurred his horse toward the capital. Thus Brazil's independence from Portugal was dramatically declared on September 7, 1822, and this day is observed in Brazil as July 4 is in the United States. Pedro became the first "Emperor of Brazil." A constitutional assembly was elected, and the separation from Portugal was achieved without fighting or bloodshed. Unlike the other South American countries, Brazil began its independent history not as a republic but as a monarchy.

How did Brazil become a republic?
Pedro I had so many troubles that after nine years he abdicated in favor of his

son, Pedro II. It is said that Pedro II loved books better than his scepter. Studying was his greatest delight, and he devoted his life to satisfying his great curiosity. His height of six feet four inches and his democratic way of dressing made him impressive. His subjects called him "magnificent."

But when Pedro II grew old the people of Brazil determined to have a republic. So a revolution deposed him. Pedro was not harmed, but was allowed to go peacefully to Europe. He refused to accept a pension from the new government.

Brazil is the only country of South America that has become a republic without having to fight a war. It was a Portuguese colony for 300 years. For thirteen years it was the seat of government of the Portuguese empire. The two emperors ruled from 1822 to 1889. Then a constitution was drawn up that provided for a republic. The constitution has been revised or changed from time to time.

Today there are twenty states, a territory, and a federal district in the *United States of Brazil*. The constitution makes the president the supreme authority. The National Parliament is made up of a Chamber of Deputies and a Federal Council. There is also a Council of National Economy. With the help of these bodies and a cabinet, the president looks after the welfare of the country.

The United States was the first country to recognize the independence of Brazil. American medical skill helped to drive yellow fever from the port of Rio

Here is one of Rio's milkmen about to make a delivery. Would you say from this picture that more or less milk is used in Rio than in a city of the United States?

H. Armstrong Roberts



Automobiles, carts, and donkeys climb the steep cobblestone streets between the upper and lower city of São Salvador. The people use the great elevators.

Pictorial Publishing Company

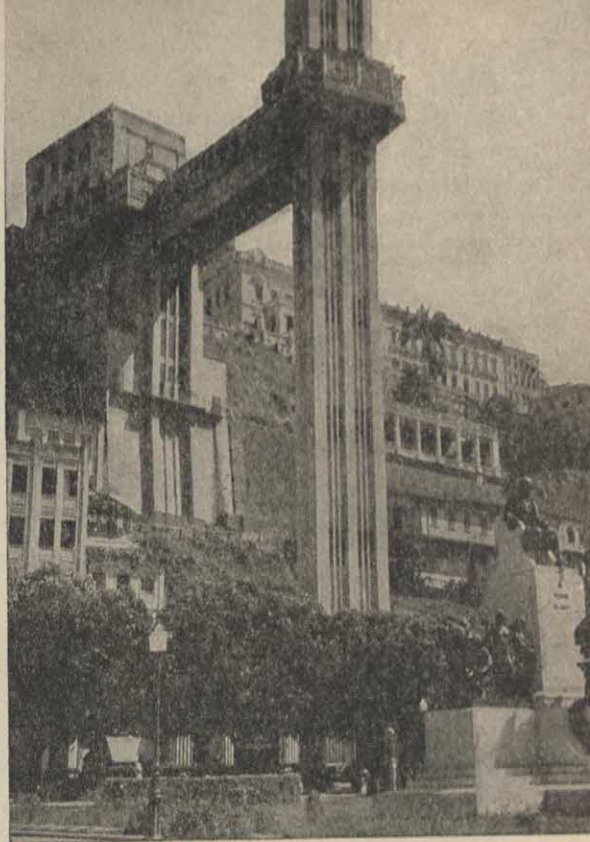
de Janeiro. Brazil entered on the side of the United States and its allies during World War I and World War II. "Brazil," says Dr. Fonseca, "will continue to be a good friend of Uncle Sam."

A swim at Copacabana. Dr. Fonseca does not have to insist when he invites us to swim at the gay Copacabana (kō'pā-kä·bä'nä) beach. Along this semicircle of open Atlantic shore are palatial residences, apartment buildings, and hotels. A wide promenade of black and white tile stretches out along the crescent beach.

Towering over us is Corcovado (kôr'-kō·vā'dōō), the "hunchback" mountain that dominates Rio de Janeiro. The 130-foot statue of "Christ the Redeemer" on top of Corcovado looks like a pygmy in the distance. At night the electric lights on the figure and its outstretched arms make a perfect cross.

After one last dive into the sea, we leave the beach for our hotel. We must pack our bags, for tomorrow we leave for São Salvador (soun' sāl'vā·thōr').

Where are Brazil's cacao lands? Leaving the airport, our plane skims over the water and turns northeast along the ocean's edge. There is almost no coastal plain here. The plateau seems to rise like a wall straight out of the sea. This wall has been a great barrier to the building of roads and railways. It is so steep that railways cross it in only a few places. In a few hours we come to the region of cacao plantations in the lower part of the state of Baía (bā·ě'ā). We see hundreds of cacao trees planted in trim rows along



the hillsides. But the best plantations are inland, twenty or thirty miles from the coast, Dr. Fonseca tells us.

Brazil is second only to the Gold Coast of Africa among the world's producers of cacao. Brazil could be called a land of beverages, since it raises so much coffee, maté, and cacao.

Why was São Salvador important in colonial times? Much of Brazil's cacao is shipped from the port of São Salvador, capital of the state of Baía. It is a city of 400,000 people and is often called Baía.

"Do you see that lighthouse?" asks Dr. Fonseca. "It marks the spot where the Portuguese built their first fort in the New World. Sixty years before the first English colonists settled at Jamestown, the Portuguese settled on this *Bay of All Saints*. São Salvador was the capital of

Brazil for 200 years. Around it were the sugar cane and tobacco plantations, the cattle ranches, and the forest products that were so valuable to Portugal."

São Salvador has a lower city and an upper city. Most of the business houses are in the lower city. In the upper city are the homes, shops, and churches. Great elevators carry the people from one level to the other.

We visit the market in the lower city. It is in a great building made of glass and steel imported from the United States. Everything imaginable is sold in the little stalls, but we are particularly interested in the unlimited variety of fruits. This region was the first home of the navel oranges that are now grown in California.

There are cigar and cigarette shops that sell nothing but tobacco raised in Brazil. We learn that the state of Baía raises most of the tobacco of this country. It is said that tobacco and cotton grow wild in many places and that sugar cane will grow anywhere in this section.

The climate is hot, for this place is only twelve degrees from the equator. We are glad to go to the upper city, where cool ocean breezes always blow. There handsome buildings line the modern paved streets. The narrow, old streets are covered with cobblestones. Old churches with blue and white tile walls glisten in the tropical sun. A medical school more than a century old is still one of the best in South America. São Salvador was the first center of education in Brazil.

What is the largest city in northeastern Brazil? Our next stop is at the capital of the state of Pernambuco (pûr'năm-bû'kō). It is called Recife (râ'sê'fû),

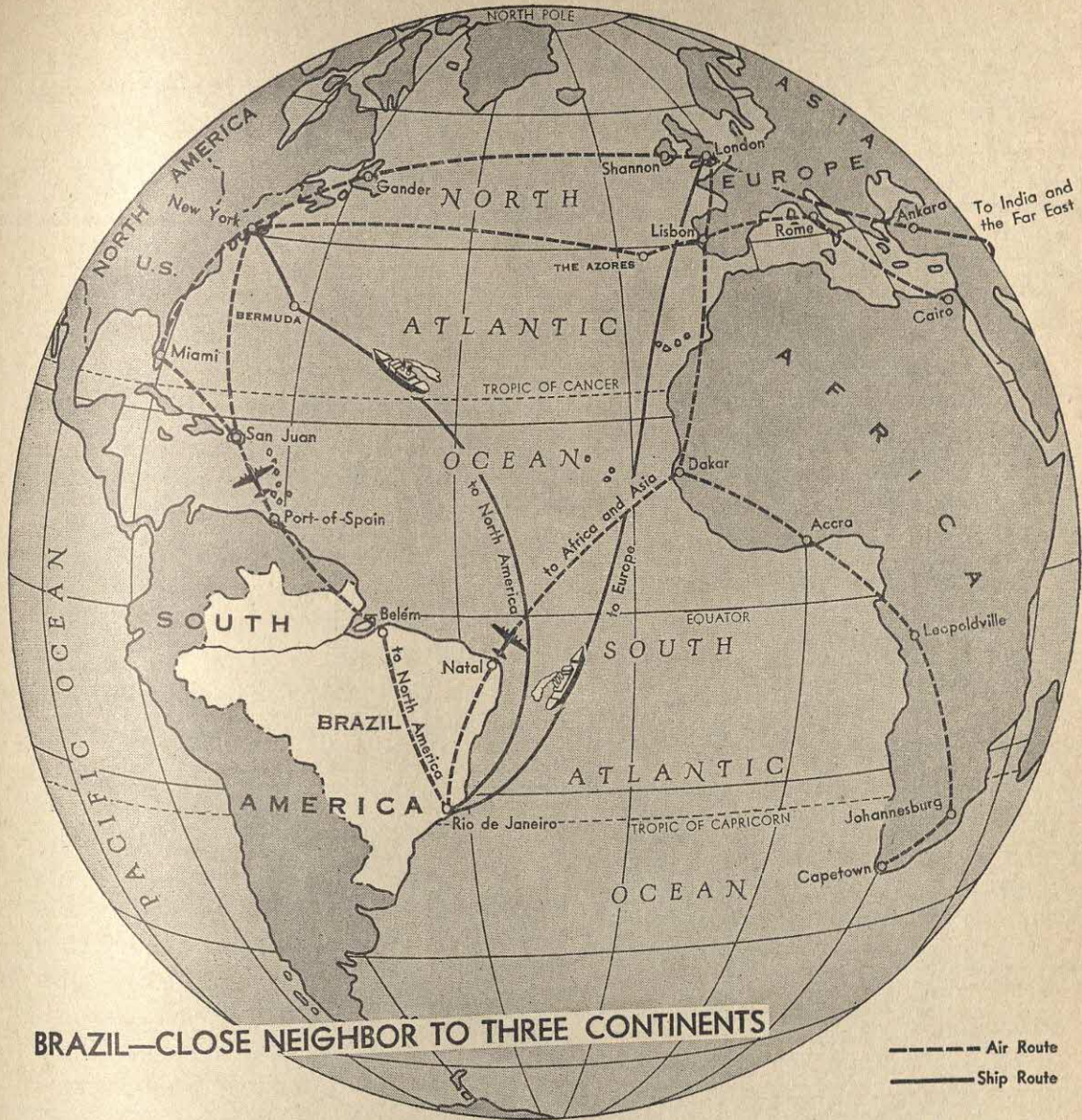
which means *reef*. The tide is low as we fly over the city, and the coral reef is plainly visible above the surface of the water. Recife is built partly on the mainland, partly on a peninsula, and partly on an island. These are all connected by so many bridges that the city looks like Venice, Italy.

The busy, progressive atmosphere in this city of 500,000 people impresses us. The wide streets and modern buildings show that it is a prosperous place. Its industries include cotton milling, sugar refining, distilling, and tanning.

To this northeastern part of Brazil were brought most of the slaves to work on the colonial cotton, sugar, rice, and tobacco plantations. São Salvador and Recife both have a larger Negro and mixed population than white. Again we are reminded that Brazil believes in racial equality, and this city of Recife shows it.

Why is the "bulge" of Brazil important to the United States? Look carefully at a map of the world. Notice how the "bulge" of Brazil reaches out toward Africa. Now follow the ship routes from Rio to New York. The distance is approximately 5,500 miles. The distance from Rio to London is about 5,900 miles. So, despite the fact that New York and Rio are both in the Western Hemisphere, there is not much advantage in distance.

This "bulge" is important also in air travel between the two hemispheres. Because the ocean is narrower at this point than it is elsewhere, transatlantic airplanes do not need to carry so much gasoline when they set out. This means they can carry more passengers and cargo on each crossing. The people of the two most important countries of South America,



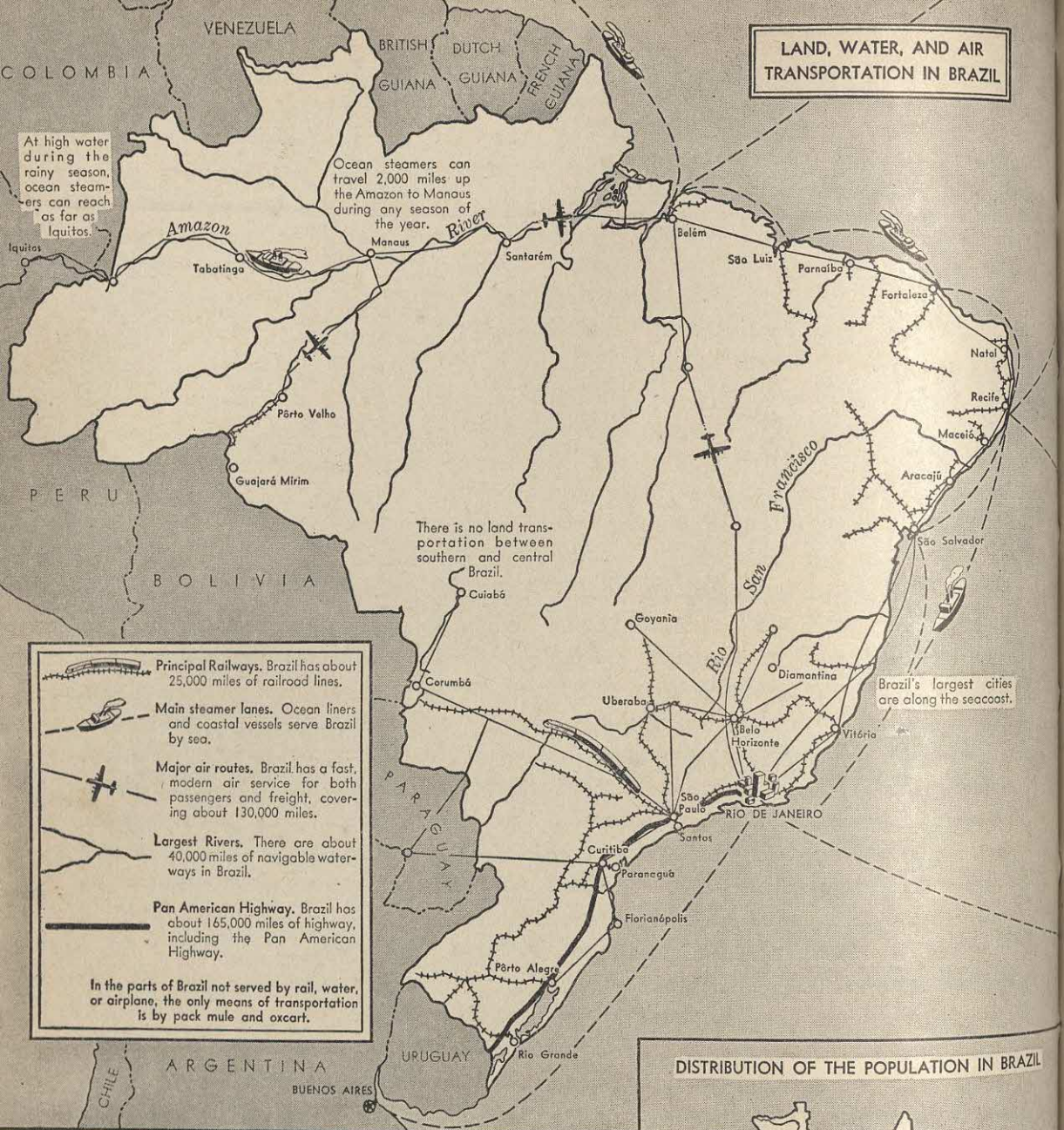
BRAZIL—CLOSE NEIGHBOR TO THREE CONTINENTS

On this view of the globe we see how the "bulge" makes Brazil a close neighbor of Africa, Europe, and North America. Brazil is nearest to Africa; and Europe is slightly closer to Brazil than is the United States. The air "bridge" from Natal to Dakar has considerably shortened the distance between South America and the Eastern Hemisphere.

Argentina and Brazil, are able to fly up the coast to the Brazilian "bulge," make the 1,800-mile hop to Africa, and then continue northward in short stages to Europe and the British Isles—or eastward to Asia. The flying distance from Rio to London is about 5,800 miles. Regular air-line service is also available to

cities in western and southern Africa. To reach New York by the shortest route from Rio, pilots fly their planes to Belém, then onward to Port-of-Spain in Trinidad, to San Juan in Puerto Rico, and then to New York—either directly, or by way of Miami, Florida.

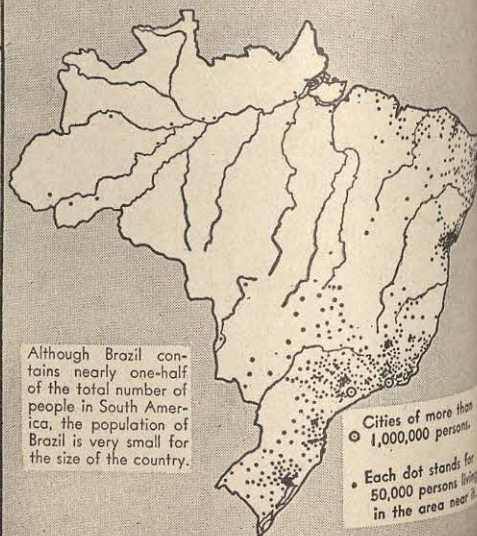
Although the international air-line



TRANSPORTATION AND POPULATION IN BRAZIL

From the maps on this page we can learn many things. Let us study and compare them. Where are most of the railroads in Brazil? Where do most of the people live? Why is the Amazon and its tributaries so important to transportation in Brazil? When is it best to fly? Notice that near the sources of some of the Amazon's tributaries there are short railroads. These are used when the water is not deep enough for boats to travel to settlements far upriver. But in most of the interior there are no railroads at all.

DISTRIBUTION OF THE POPULATION IN BRAZIL



planes fly directly from Rio to Belém, local air lines go first to Natal. The flying distance from Rio to New York is about 7,000 miles. When we visit Newfoundland we shall learn of the northern transatlantic air route.

Why is the interior of Brazil undeveloped? Although many cities in Europe, Africa, and North America can be reached in a few hours by plane, yet many days are required just to go from the coast of Brazil to settlements far inland. Much of the interior can be reached only by oxcart or pack mule, or by boat on the Amazon and its tributaries.

Because transportation to the interior is so difficult, much of Brazil's valuable resources lie undeveloped. This is Brazil's foremost problem: to expand her transportation system and develop her resources of the interior.

How useful is the carnauba palm? Our plane is now starting around the "bulge" of Brazil. Dr. Fonseca tells us that this is the land of the carnauba (kär·nou'ba) palm. This tree is very valuable. From the wax of its young leaves, candles are made. Carnauba wax is also used in motion-picture films and phonograph records. The trunk of the tree is used for lumber and is ground up to make paper pulp. The fruit is often fed to cattle. Its

sweet pulp can be eaten by people or made into conserves. The white liquid inside the fruit is like the milk of a coconut. The shell of the fruit is roasted and used as a substitute for coffee. The root is used for medicinal purposes. From the bark of the carnauba is made a kind of meal. Even the pith of the tree can be used as a substitute for cork.

In another few hours we shall be flying over the greatest river in all the world, the mighty Amazon. Few people realize its tremendous size. At its mouth, it is more than 200 miles wide.

The Amazon is not only wide, it is deep. Much of our Mississippi is only nine or ten feet deep, and this channel is kept open only by constant dredging. The Amazon is 200 feet deep near its mouth and over 100 feet deep as far inland as 2,000 miles. It has seventeen tributaries that are each more than 1,000 miles long. Ocean ships steam up the Amazon 2,300 miles to river ports in Peru. The Amazon pours such a flood of water into the Atlantic that an interesting story is told about it.

A sailing vessel once lay becalmed off the coast of South America. For more than a week not a breath of air had rippled the surface of the water. Every sailor was suffering the agonies of thirst,

An interesting product of Brazil is carnauba wax. The wax is taken from the carnauba palm. American industry has found a multitude of uses for carnauba wax.

Charles Perry Weimer—Three Lions



for the ship's supply of fresh water had given out a day and a half before.

Suddenly the lookout discovered a faint plume of smoke on the horizon. Would it pass by too far away to be of help? No! It gradually drew closer, until first the mast, then the stacks, and finally the ship's rigging could be seen. Distress signals were raised, and a sailor high above deck frantically waved flags to attract attention. Letter by letter he spelled out the words "Water!" "Water!" "Water!" Aboard the steamer the officers could hardly believe their eyes.

The steamer soon came within hailing distance of the stranded ship. The officer on the bridge of the steamer picked up his megaphone and shouted across to the thirsty sailors:

"Dip your water out of the sea. You are off the mouth of the Amazon."

The ships were more than fifty miles from shore. But the volume of water pouring from the Amazon was so great that even at that distance the salt water of the ocean had not yet become mixed with the fresh water of the river.

Soon we are flying over the Pará (pä-

rä') River, one of the mouths of the Amazon. Below us are quaint boats with large blue sails. We see dugout canoes, slipping along the dense green wall of the forest lining the riverbank.

Suddenly there spreads below us the city of Belém, the home of Dr. Fonseca and about 300,000 other people. Another name for this city is Pará. We notice the beautiful squares, the broad and shady boulevards, the great white marble theater, and the old cathedral. At the docks are hundreds of boats.

Some are river boats from far inland. For the Amazon River and its tributaries are the only highway over which lowland products such as rubber, cacao beans, Brazil nuts, sugar, hides, and lumber reach their market. Other boats are ocean steamers waiting to take on cargoes of these tropical products and carry them across the sea to other lands. Belém is therefore a great trading center and port and most of the business houses are connected in one way or another with the exporting of these products.

The story of a trip down the Amazon. On landing we go to the home of Dr.



Boats from all over the world dock at Belém, but the most interesting are the boats of the river traders and fishermen. Most of these crafts are small and smelly, but because there are so many of them, they carry an enormous amount of merchandise.

James Sawyers



Courtesy Grace Line

In the villages and towns many of the houses are made of adobe with tile roofs. Some are made of bamboo with mud-plastered walls. Farther in the interior and among the poor people, a crude, thatched shack, with palm leaf walls or even without walls, serves as a home. The house is likely to be set up on poles as protection against the river at flood time.

Fonseca. We stop at a low, spacious house set in a garden of tropical flowers. On going inside, we find a cool, comfortable home, modern in every respect.

After dinner we meet Dr. Fonseca's brother, who is a businessman. He has just returned from the upper Amazon. When he hears how interested we are in that great tropical region, he tells us about his trip.

When does it rain on the Amazon? It was early morning when he boarded the river steamer on the upper reaches of the Amazon. There were only a few other passengers, some of them businessmen like himself. Besides passengers, the steamer carried a few cattle and hogs and a small cargo of rubber. Other products were taken on, as the ship continued on its 2,000-mile journey through the Amazon lowlands to Belém.

Some of the cattle would be killed on the way down the river to provide fresh meat for the passengers and crew. The remainder of the meat would be sold in

the villages and towns along the river.

Every five or six hours the boat would stop at a little village or at some trader's post for firewood to feed the boilers. Then men, women, and even boys eight and ten years old would begin carrying firewood aboard. There would be a great hustle and bustle for several hours, until the steamer was refueled and on its way.

For the first few hours there was a continuous downpour of rain. In the great Amazon lowlands there is really no such thing as a dry season. There are only a wet season and a season not quite so wet. During the season of heavy rains, the rivers of the Amazon lowlands overflow—covering thousands of square miles of land with water. The Indians who live in this region build their houses high on stilts and travel about in dugout canoes.

How does an Indian family of the Amazon live? Because this is right on the equator, the weather is always warm and very humid. Strangely enough it is not terribly hot. In fact the temperature



Throughout much of Latin America, cassava is used as a substitute for bread. It is made from the roots of the manioc plant. The roots are scraped, grated, and squeezed to extract the poisonous juice. The starchy meal is often sprinkled over every article of food by the Brazilians. The tapioca we use is made from the manioc plant.

Ewing Galloway

seldom reaches 100°. This is because the trade winds, which blow steadily from the Atlantic, temper the heat. Nevertheless the people do not wear many clothes. Often the children wear none at all.

Much of the family's food is obtained from the river. More than 700 different kinds of fish are found in the Amazon, and most of them may be used for food. River turtles also make a tasty dish.

Often the boys do the fishing. They stand in the water near the riverbank, ready to spear any large fish that may come their way. But the boys must be careful. Some Amazon fish are so fierce that they will attack human beings. Ferocious alligators also lie in wait for unwary fishermen. Electric eels, whose shock can paralyze a person, also make the water dangerous.

Not all the family's food comes from the river. Much of it comes from the near-by forests. Here the men of the family gather honey and hunt wild pigs and other animals. They use crude traps, bows and arrows, or spears. In some of

the more remote regions, the Indians hunt with blowguns. A blowgun is made of wood and looks like a long pipe. Through it the hunter blows a small dart tipped with poison. He uses the blowgun to shoot small animals and birds.

The women are the farmers of the family. They gather the poisonous roots of the cassava, which they have planted in jungle clearings. The roots are first grated and soaked in water. Then the poisonous juice is squeezed out. The meal that remains is placed on a flat rock and baked by the sun. In this way jungle "bread" is made.

The cook pot that is never empty. These people naturally have no refrigerators. Therefore all the fish and game they catch must be cooked immediately to keep them from spoiling. If a wild pig is caught, part of it may be roasted and eaten at once. The rest is thrown into the cook pot, which simmers constantly over the fire.

The next day other bits of meat, fish, or vegetables may be added to the pot.

Usually there is enough food in the pot to feed the family even on days when hunting and fishing are poor. The pot seldom becomes empty from one end of the year to the other.

Whenever a member of the family is hungry, he helps himself. He dips the food out of the cook pot with a gourd and eats it with his fingers. These people have no forks nor spoons.

Dangers of the jungle. The jungles are so dense and the mass of leaves and vines so thick, that in many places the rays of the sun never reach the ground. The jungle would be a gloomy place for us indeed except for the brilliantly colored birds and the gorgeous butterflies. Some of the butterflies have wings as large as a man's two hands. But for the Indians, the jungle is home. Faint trails that we could never even find are "main streets" through the wilderness.

What is the story of rubber gathering? Farther down the river there was a tiny village set in a clearing near the bank. There were a few thatched huts without sides and some dugout canoes pulled up

along the bank. It was a rubber gatherers' camp.

The day of a rubber gatherer is then described for us by Senhor Fonseca. Every morning, unless the rains are too heavy, the rubber gatherers set out for the jungle. Each one works a certain part of the forest. Sometimes these sections are five or six miles long and a mile wide. There may be as many as 200 rubber trees under one gatherer's care.

The rubber gatherer follows a little path from tree to tree. When he comes to a rubber tree, he cuts a gash in the bark. He then hangs a cup under the gash. By noontime he has finished his circular route and is back in camp.

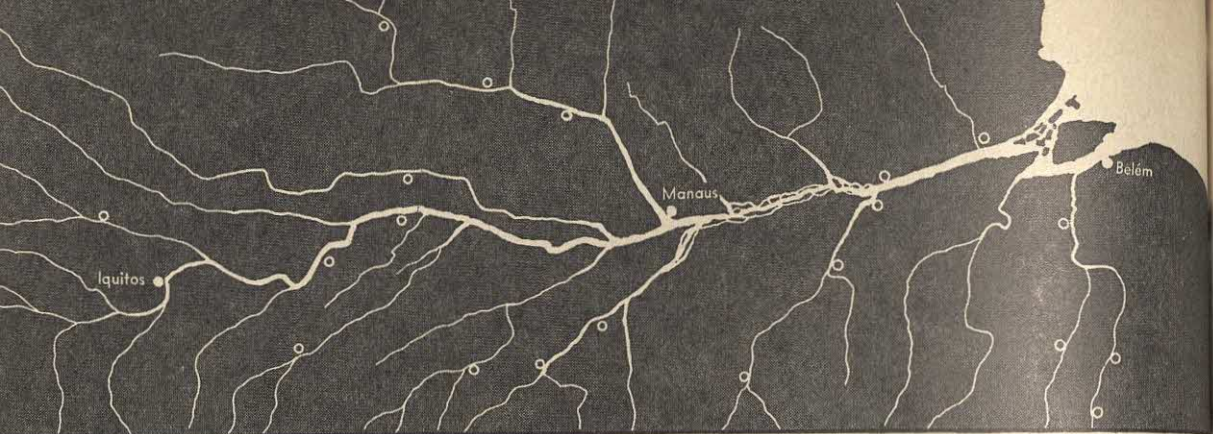
In the afternoon he sets out once again, this time to collect the *latex* (lă'těks), or sap, that has flowed into the cups. This latex is later poured, little by little, over a stick held in the smoke of a fire. Gradually the latex forms a large ball, or "ham," of crude rubber. This rubber is exchanged with traders for supplies.

A modern city in the heart of the jungle. In another day or two the steam-

Towns along the Amazon are often nothing but clearings in the jungle—a crude dock loaded with wood for the river steamers, a trading post, and a few people.



James Sawyers



The Amazon River and its tributaries are the highways of commerce for the Amazon valley. From little towns and trading posts along the larger rivers, traders work inland along the small rivers, bartering food, clothes, trinkets, and supplies for crude rubber, nuts, and other products of the forest. The main trading cities are Belém, Manaus, and Iquitos in Peru.

er reached Manaus (mä·nä'ōös), a city of about 90,000 people, in the midst of the jungle. Let us find it on the map.

The steamer stopped in Manaus for two days. During that time stevedores were busy loading the boat with "hams" of rubber and with Brazil nuts. Millions of these Brazil nuts are shipped to the United States each year. Besides their use as food, these nuts are a valuable source of oil for use in artists' colors.

Many other ships were also taking on cargo at Manaus. Some of them were ocean-going vessels that had crossed the Atlantic from Europe and steamed up the Amazon and Negro rivers to Manaus, more than a thousand miles inland.

Why did Manaus grow from a jungle village to a busy city almost overnight? Many years ago, when automobiles were just coming into use throughout our part of the world, there was an increased demand for rubber. At this time, nearly all the rubber in the world came from the forests of Brazil.

As the demand for it increased, the price of rubber rose higher and higher. Before long it was selling for several dollars a pound. Rubber then began to pour

into Manaus in great quantities. Rubber merchants in that city suddenly found themselves millionaires. Manaus became the greatest "boom town" of all times. A magnificent marble opera house and handsome public buildings were quickly erected. Opera singers were brought over from Europe. Nothing was too good for the rich rubber merchants.

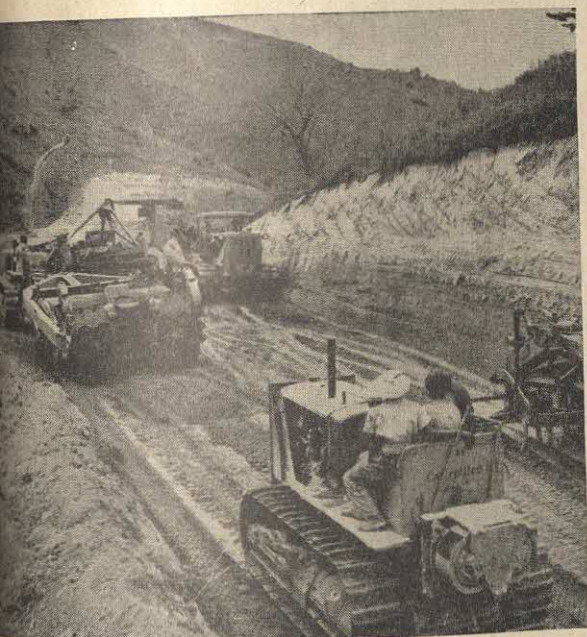
But almost overnight the boom collapsed. Several years earlier, an Englishman had quietly collected seeds of the rubber tree and taken them to England. These seeds were planted, and the young trees were grown in hothouses in England. Later they were taken to Ceylon, and to British Malaya and Sumatra in the faraway East Indies. There the climate and soil seemed to be just right for the growing of rubber trees.

Before many years had passed, millions of trees were growing on East Indian rubber plantations. When these plantations began to produce, they were able to furnish all the rubber the world needed at very low prices. So, after several years, the price of raw rubber dropped to only a few cents a pound. Business in Manaus was ruined. Thou-

Modern Brazilian pioneers must face dangers and difficulties unknown to those who settled our own West. Instead of forests, plains, and mountains to cross, there are tangled jungles to cut and steaming swamps to fill. It takes many workers a long time to clear a few miles of the dense jungle. They must fight off stinging insects and poisonous reptiles as they hack their way through the thick growth.



James Sawyers



Press Association

BRAZIL BUILDS FOR THE FUTURE

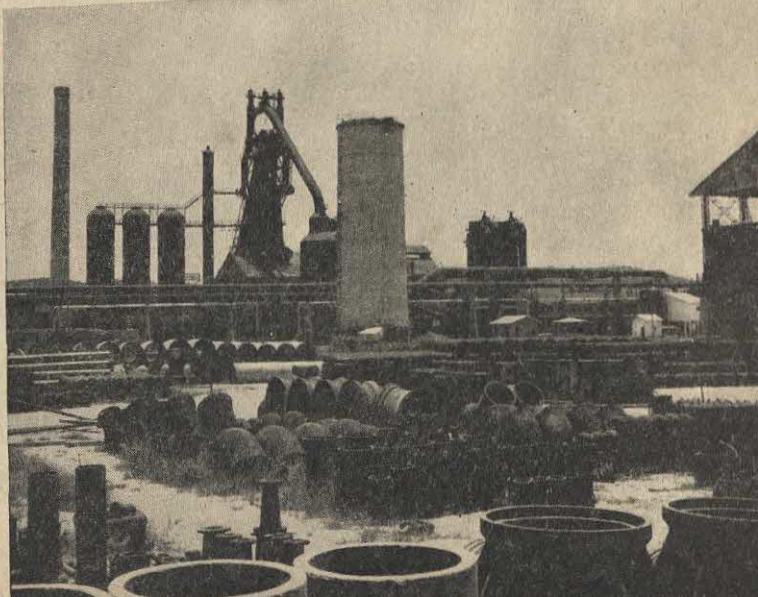
The Brazilian government is helping to develop the interior of the southern third of its country. This region, which consists partly of hilly areas and plateaus, is rich in timber and minerals. The altitude makes the climate favorable, and the land is good for farming—although some of it is too mountainous or swampy.

Nine-tenths of the people of Brazil live along the Atlantic coast. But thousands of native Brazilians—as well as immigrants—are “going west” to colonize millions of acres of this uninhabited interior. Irrigation projects are under way, forests are being cleared, roads are being built, factories and towns are springing up. New farm settlements are already shipping quantities of rice, beans, sugar, fruit, and meat to the coastal cities. In what way is this Brazilian westward movement similar to the one which took place in the United States? How is it different?

Wide World

The picture above shows construction work on a superhighway which will connect the coast with the interior of Brazil. Notice that the tractors being used were made in the United States.

At the right we see one of the blast furnaces at a new steel mill not far west of Rio. The United States is sending money, machinery, and engineers to help Brazil build its new industries.



sands of people left the city. The beautiful opera house became an empty shell and a home for bats.

Brazil still produces some of the finest rubber in the world. But rubber produced in Brazilian jungles is much more expensive than plantation rubber from the East Indies. There the trees grow closer together. They are easier to care for, and the latex can be collected more quickly.

A few roving Indian tribes live in the rubber-producing area of the Amazon. In a region larger than the state of New York and New England combined, there is only one city (it has less than 10,000 people) and ten villages, most of them small river ports with only a few hundred

Brazil nuts grow wild in the tops of tall jungle trees. Each shell, weighing over four pounds, contains about twenty nuts. The nuts are rich in food value. Brazil exports 30,000 bags yearly.

Ewing Galloway



people each. People from the more heavily populated regions of Brazil do not wish to move into the Amazon basin, nor do many immigrants from the Old World care to live in such a hot land. They much prefer to settle in the southern part of Brazil, where the climate is more like that of Europe.

Perhaps some day this problem of the emptiness of Brazil will be solved. If it is, Brazil may become one of the great rubber-producing nations of the world.

Why is very little lumber taken from the forests of the lowlands? From Manaus to Belém was a journey of about four days. During this time the steamer passed a few jungle clearings. Every now and then, the passengers saw a great raft on which several families were traveling downstream together.

In a few places, crude sawmills were seen on the high banks of the river. These lowlands contain many valuable hardwood trees. But they are scattered through the forests far away from railroads. In all this vast lowland region, comprising an area more than half the size of the United States, there are only about 300 miles of railway. Consequently, little of this great wealth of timber lies within reach of the sawmills.

What is rotenone? At one point of the journey, the steamer passed a brand-new factory built by an American businessman. This factory produces a powder called *rotenone* (rō'tē·nōn).

This man had noticed that the natives of South America often caught fish by swishing the mashed roots of a certain plant through the water. In a few minutes all the fish in the immediate vicinity came to the surface. They had been

Every year men from our zoos go far into the back country of Brazil, hunting for some of the strange animals, such as the anteater which makes its home in this region. The sloth, tapir, and jaguar are also found here.



killed by a poison in the plant. The man learned from the natives that this poison would kill fish and insects, but would not harm human beings.

A few pounds of the powder made from the plant were sent to the United States Department of Agriculture. Experiments were carried on with the powder, and it was found to be an excellent insecticide, or insect killer. Since then many factories have sprung up along the Amazon to produce rotenone, for use on truck farms all over the United States.

Fifteen days after starting down the river, the steamer reached Belém. Here its cargo of lowland products was unloaded to await shipment to ports in other parts of the world.

We thank Senhor Fonseca for his interesting story of the Amazon lowlands. We are sorry that we do not have time to take the airplane trip to Manaus. He tells us that from the air one sees the big river winding across the green forested lowlands like a great brown snake. To see some of the tropic rain forests of the lowlands, we visit the jungle park just outside Belém. Here we see a little bit of jungle that has been kept just as it was when the Portuguese came to America. It is dark, and we could not get through the dense underbrush if it were not for the paths. Then we visit a museum, where we see a fine collection of Amazon animal life. Regretfully we return to say good-by to Dr. Fonseca.

As the doctor is busy, Senhor Fonseca

goes with us to the airport. He asks us what we think about Brazil. We tell him how much we have enjoyed our visit. We tell him there are at least six things that we shall always remember.

1. Brazil, next to Canada, is the largest country in the Western Hemisphere.

2. Brazil was first a Portuguese colony, then a kingdom in the Portuguese empire, then an independent empire, and finally a republic.

3. The three major regions of Brazil are the interior tablelands, the Brazilian highlands, and the Amazon lowlands.

4. The Amazon is the mightiest river in the world.

5. Brazil produces two thirds of the world's coffee. Some of its other products are cotton, cacao, diamonds, rubber, nuts, and cattle.

6. Brazil and the United States have always been good friends.

We wave good-by to Senhor Fonseca, as our plane rises. It takes us more than an hour to cross the mouth of the Amazon River, with its islands large and small. Then our plane gives two dips as a salute to the equator and proceeds on its way. In another hour or two we shall be in French Guiana.



BRAZIL

If good business makes good friends, then we should always be good friends with Brazil. Brazil needs many of the manufactured products made in our country. We need most of the tropical and subtropical products raised in Brazil. We can also use many of her mineral products, and some, such as manganese, quartz crystals, and industrial diamonds, are of special importance in wartime.

EXPORTS

Coffee
Cotton
Cacao
Hides and skins
Meats
Fruits
Nuts and oilseeds
Carnauba wax
Diamonds

IMPORTS

Machinery
Iron and steel goods
Wheat
Drugs and chemicals
Automobiles
Coal and coke
Other vehicles
Gasoline and Diesel oil
Hardware tools



Courtesy Netherlands Information Bureau

For the United States, the Guianas are important mainly for their large deposits of bauxite, the ore from which aluminum is extracted. Most of the bauxite is found in Dutch Guiana. Every year, millions of tons of it are carried from Paramaribo to Mobile, Alabama, and to other parts of the United States where the aluminum companies have their refineries.

THE GUIANAS—OLD WORLD COLONIES

Our first stop, two and one-half hours after leaving Belém, is in French Guiana. This is one of the three Guianas; the other two are Dutch Guiana, whose official name is Surinam (sōō'ri·nām'), and British Guiana.

Why do the Guianas belong to European countries? This part of South America was first sighted by Columbus on his third voyage. In the following years, other Spanish explorers visited this coast. It was not an inviting region, so Spain soon forgot it in her search elsewhere for gold, silver, and jewels.

Much later, French and Dutch traders began to come here. Around 1600 an English expedition, led by Sir Walter Raleigh, widely explored this region in search of a mythical city of fabulous riches. Later the English gave part of the Guianas to the Dutch in exchange for New Netherland, the region now known as the state of New York. The Dutch

were well satisfied with the exchange, because at that time the Guianas were providing quantities of valuable sugar.

Because the Spanish were too busy elsewhere, and also due to the persistence of the French, Dutch, and English explorers and traders, the Guianas are today colonies of three European countries, instead of independent republics like their Latin-American neighbors.

Of what value are the Guianas in time of peace? All three Guianas are producers of tropical products, sugar, cacao, rice, and tropical fruits. Enough products are raised to take care of the inhabitants of these countries and some is left over, especially sugar and cacao. Most of these surplus products are sold to the mother countries. France gets the products of French Guiana, Holland gets the products of Dutch Guiana, and England and Canada, the products of British Guiana.

In addition to the products of the farms

and fields, there is some mining. We remember that in the Guiana Highlands of Venezuela prospectors often found quantities of gold and some diamonds. The eastern end of the Guiana Highlands is in British Guiana, and some gold and diamonds are also found here.



THE GUIANAS

EXPORTS

Bauxite
Sugar
Gold
Rice
Coffee

IMPORTS

Machinery
Textiles
Foodstuffs
Iron and steel
goods

The most valuable product of the region is bauxite. This is the ore from which aluminum is made. Every year the big aluminum companies of the United States take hundreds of thousands of tons of bauxite from Guiana, principally from Dutch Guiana. A never-ending

stream of ore boats carry the bauxite from the Guianas to Mobile, Alabama, and other places in the United States where there are aluminum refineries.

Our plane stops but twenty minutes at Cayenne (kā·ĕn'), the capital of French Guiana. This colony was long used as a penal settlement by the French, who sent criminals and political prisoners here. France has now stopped this practice.

Our second stop is at Paramaribo (pär'ă·măr'ī·bō). This is the capital and main bauxite port of Dutch Guiana. The streets are clean, and the houses are said to look much like those of Holland. Most of the people are Negroes or mulattoes. They are the descendants of slaves brought in years ago to work on the sugar plantations. We also see some persons from the Dutch East Indies, and some from the island of Java. They were imported to do farm labor when the slaves were freed.

Our next stop after Paramaribo is Georgetown, the capital of British Guiana. We stay in this town only fifteen minutes, but even in this short time we see much activity at the docks. We learn that the houses of this city are built on piles because the land is so marshy.

YOUR ACTIVITY PROGRAM

Now that the imaginary journey through Brazil has been completed, it is well to pause and review what you have learned about Brazil.

Solving the Problems

A. Recognizing the Problems

1. There are twenty-eight problems presented in this unit. Write down in your notebook the ones that seem most important to you and explain why you consider them important.
2. Check through the problems in this section and note the ones that seem to point to future

possibilities in the development of Brazil. Be ready to tell why you think so.

B. Gaining the Understandings

1. Be sure that you are able to answer the following questions:

How does Brazil compare in size with the United States?

Brazil lies mostly in what climatic region? What caused the Portuguese language to be spoken in Brazil?

What type of land is in northern Brazil?

What is the feeling concerning race equality in Brazil?

Where are the most valuable crops of Brazil grown?

What is the interior tableland section of Brazil sometimes called?

What keeps the tableland section from developing?

What kind of cattle thrives best in this region and why?

What event helped to develop the southern part of the Brazilian highlands?

What language is now required in the schools of Brazil? Why?

For what is São Paulo noted?

How is coffee grown and prepared for market?

For what is the coffee surplus now being used?

For what is the city of Santos known?

What were the early pioneer prospectors of Brazil called?

In what way is the history of Rio de Janeiro different from that of any other capital of South America?

What type of government did Brazil have for many years after it became independent from Portugal?

Which was founded first, São Salvador or Jamestown?

What city was capital of Brazil for 200 years?

What are some of the distinctive features of Recife?

What new or future importance does the "bulge" of Brazil have?

In what ways is the carnauba palm useful to Brazilians?

What makes Belém an important city?

What seasons are there along the Amazon?

What tempers the climate in the equatorial region of Brazil?

How is rubber gathered?

What caused Manaus to become a ghost town?

Why is lumbering not more important in the lowlands?

For what is rotenone used?

Upon what developments does the future of Brazil depend?

2. Be sure you know the location of the following cities or places mentioned in this unit and how to pronounce their names:

Iguassú Falls

Baía

Belém

Rio de Janeiro

Curitiba

Copacabana

São Paulo

São Salvador

Santos

Manaus

3. Why is bauxite exported from the Guianas instead of aluminum?

4. How did the Dutch obtain Dutch Guiana?

5. Write down the twenty-eight understandings you have gained from this unit. Compare your understandings with those written by your classmates.

Enriching the Understandings

1. Find the average population per square mile of your own state and compare it with that of Brazil.

2. Read as much as you can in available books and magazines to clear up the problems you have indicated as being the most important.

3. On a globe trace the air routes from Brazil to the United States and from Brazil to England.

4. Get pictures of the brightly colored birds and animals that live in the Amazon area. Put them in a scrapbook or in your notebook.

5. Draw a map of Brazil showing the three main geographical sections. Use browns and greens to indicate highlands and lowlands.

6. Get colored pictures of São Salvador, Recife, or other picturesque cities in Brazil, showing their brightly colored houses and decorations.

7. If possible, get samples of crude rubber. Have some members of the class learn all they can by outside reading and other means, about the processing of rubber. Then have this group give an illustrated talk to the class.

8. Add the stamps and coins of Brazil to your collections.

9. Exhibit foodstuffs that come from Brazil, such as Brazil nuts, tapioca, and coffee beans.

10. In your reading find out more about the Indians who live in the jungles of Brazil. Make models of their houses and boats.

11. List the products of each of the Guianas. To what countries are they exported?

Applying Your Knowledge

For many years Brazil has been one of the friendliest of our South American neighbors. Prepare a short paper discussing the reasons for it. Tell why it is fortunate for both Brazil and the United States that they are very good friends.

The following questions may help you write your paper.

Did Brazil have trouble in getting the United States to recognize its independence?

Does Brazil grow products that the United States very much needs?

Does the United States have products that are needed by Brazil?

Have any of our citizens helped Brazil solve her problems?

Are we close enough to Brazil to make travel between the two nations easy?

How would the "bulge" of Brazil be a menace if Brazil were not a friendly nation?

Forming Opinions and Attitudes

1. The people of Brazil have no race feeling such as exists in our own country. How does this fact affect your personal attitude toward our good neighbors in Brazil? Should it make any difference in the conduct of our government toward that country? Be able to defend your point of view with sound reasons.

2. Do you think Brazil did right in forbidding schools to carry on in a foreign language? Discuss this question in class.

3. Should the United States loan Brazil the money with which to develop its iron and steel resources? After studying all sides to the question, write a short paper explaining your decision.

4. Is it right for any European countries to continue holding territory on the continent of South America?



Pictorial Publishing Co.

To most Americans the islands of the West Indies are lands where pirates once held sway. Today palm trees gently wave in the trade winds, the sun is warm, and the flowers bloom in profusion. Thousands of tourists visit the Caribbean during the cold winter months in North America.

9. The West Indies—Island Steppingstones

Why are the West Indies called “steppingstones” between North and South America? Our map shows us that the West Indies extend in a great curve from Florida to South America—a distance of nearly 2,500 miles. What are the names of the four largest islands in this group? Which of the larger islands belongs to the United States? What European countries own islands in the West Indies? Which island is divided between two independent countries?

Between the West Indies and the shores of Central and South America is a very large and important body of water, the Caribbean Sea. In colonial times many a Spanish treasure ship bound for Spain crossed this sea, and many an English pirate frequented these waters in search of prey.

Since these early days the Caribbean has been crisscrossed with ocean traffic.

With the opening of the Panama Canal, this traffic increased a hundredfold, until now the Caribbean is one of the great trade routes of the world.

Examine the map on page 251. Notice how the continuous chain of islands is ideally situated to protect the Atlantic approaches to Central America, the Panama Canal, and the entire Gulf area. They are outposts of defense, enclosing the whole region of the Caribbean Sea.

When war threatened in 1940, the United States recognized the importance of this island chain: we made an agreement with Great Britain by which we traded fifty destroyers to the British Government in exchange for 99-year leases on sites in certain strategic British West Indies islands. On these sites we constructed military, naval, and air bases which we still maintain. Find the islands marked “U.S.A. Base.”

The islands of the West Indies form a natural chain because most of them belong to a great mountain range whose peaks project above the surface of the sea. Any ship entering the Caribbean Sea from the Atlantic Ocean must pass between these mountain peaks!

A glance at the map tells us that the main island chain is known as the *Antilles*. It is divided into two groups: the Greater Antilles, including Cuba, Jamaica, Hispaniola, Puerto Rico, and smaller close-lying islands; and the Lesser Antilles, including the smaller islands that extend southward in a gentle curve.

Why are the Windward Islands and the Leeward Islands so named? The Lesser Antilles are divided into two groups: Windward and Leeward. The Windward group, extending from St. Lucia (sánt lū'shī·â) to Grenada, lie in the path of the trade winds—hence their name.

The Leeward Islands extend from Puerto Rico (pwēr'tō rē'kō) to Martinique (mār'tī·nēk'). They are so named because the Windward Islands partly shelter them from the prevailing winds.

The Bahama Islands are not a part of the Antilles chain but are low-lying is-

lands of coral formation. The surface rock is hard, while underneath is a strange concrete-like material — soft enough to be easily cut into blocks. After contact with air and water for a few hours it hardens. This material is used in building the picturesque Bahaman homes and constructing the excellent streets and roads on the islands.

When Columbus first sighted land on October 12, 1492, it is supposed that his eyes rested upon the island of San Salvador in the Bahamas group. Until recently it was known as Watlings Island, but San Salvador is now its official name.

Columbus discovered and explored other islands during later voyages. Most of the islands were inhabited by a native tribe known as Caribs—after whom the Caribbean Sea is named. The Caribs resisted when the Spaniards tried to take away their lands, but they were finally overcome. Many fell ill of the white man's diseases, and died.

From many islands the survivors were carried into slavery to Hispaniola, where they likewise perished. A small group on St. Vincent resisted successfully for many years, but in 1796 the British deported them to an island near Honduras.

Ewing Galloway



These Negro boys are sitting on the front steps of their schoolhouse on San Salvador island in the Bahamas. Over 450 years ago Columbus discovered their island—the first New World land he looked upon. Their ancestors were brought here from Africa to be slaves, and were granted freedom in the nineteenth century. Today eighty percent of the Bahamans are Negroes. There are about 3,000 islands, both large and small, in the archipelago. Only twenty-one of them are inhabited.

FOREIGN POSSESSIONS IN THE WEST INDIES AREA

The map shows the following territories and their controlling nations:

- United States:** Florida, Key West, Miami, Havana, San Salvador, Guantanamo, Cuba, Haiti, Dominican Republic, Puerto Rico, San Juan, Barbuda, Antigua, Guadeloupe, Dominica, Martinique, St. Lucia, St. Vincent, Barbados, Grenada, Tobago, Trinidad, Surinam, French Guiana, British Guiana, Venezuela, Colombia, Panama, Costa Rica, Nicaragua, Honduras, Guatemala, El Salvador, and the Canal Zone.
- Great Britain:** Barbuda, Antigua, Guadeloupe, Dominica, Martinique, St. Lucia, St. Vincent, Barbados, Grenada, Tobago, Trinidad, Surinam, French Guiana, British Guiana, Venezuela, Colombia, Panama, Costa Rica, Nicaragua, Honduras, Guatemala, El Salvador, and the Canal Zone.
- France:** Surinam, French Guiana, British Guiana, Venezuela, Colombia, Panama, Costa Rica, Nicaragua, Honduras, Guatemala, El Salvador, and the Canal Zone.
- Netherlands:** Surinam, French Guiana, British Guiana, Venezuela, Colombia, Panama, Costa Rica, Nicaragua, Honduras, Guatemala, El Salvador, and the Canal Zone.

EQUATOR 3

The island of Jamaica is the largest of the British West Indies group. It has a mountainous backbone, but there are many beautiful hills and valleys here. Its name comes from the original Indian—*Jaymaca*, meaning “island of springs.”

Jamaica was discovered by Columbus on his second voyage in 1494. Later, it became the headquarters of seventeenth-century pirates and buccaneers. For a time, Jamaica was a great slave market.

Jamaica is in the path of frequent hurricanes and lies in the earthquake belt of this region. Thousands of lives have been taken during the last three centuries by these two destructive natural forces.

What foreign powers own most of the small islands of the West Indies? Great Britain holds most of the islands in the West Indies, including the Bahamas, Jamaica, and Trinidad, as well as scores of smaller islands—mostly in the Lesser Antilles group. Notice on the map how



Ships that sail from the Atlantic Ocean through the Panama Canal to Pacific waters must first pass through the West Indies chain of islands. What are the four large islands of this group?

British Honduras in Central America and British Guiana in South America serve as ends of the British West Indies chain. British ships ply these waters constantly, bringing finished products from the home islands and carrying away sugar, bananas, cocoa, arrowroot, fuel oil, sponges, and other products.

The important French possessions in the West Indies are Martinique (mä' tī·nēk'), Guadeloupe (gô'dē·lōöp'), and several smaller islands near them.

The Netherlands owns the three islands of Curaçao, Aruba, and Bonaire, which lie off the coast of Venezuela. They are composed mostly of rock which at one time was erupted from the earth. Now they are ringed with coral rocks which have accumulated over a period of many centuries. These three islands are very valuable possessions because of the huge oil refineries which have been built there. Most of Venezuela's crude oil output is brought to these islands for refining. Petroleum and petroleum products are then shipped to the British Isles, the United States, and the Netherlands. A few tiny islands in the Leeward group also belong to the Netherlands.

What islands are possessions of the United States? Puerto Rico (pwër'tō rē'kō) and most of the Virgin Islands are the chief possessions of the United States. What smaller islands of the West Indies belong to us? On what foreign-owned islands do we have bases?

Trinidad is an important airline base, the starting point of our flight northward. Both Trinidad and Tobago are an extension of the coastal mountain range. Tobago is an extinct volcano. Both are considered West Indies islands, however,

As workers dig out chunks of asphalt from Pitch Lake on Trinidad, the holes are slowly filled again as the soft material becomes level. Undersurface springs keep the "lake" soft and moist. About 65,000 tons of asphalt are exported each year to be used in making roads, roofs, waterproofing material, insulation, paints, and plastics. There is still enough asphalt in Pitch Lake to last for several generations.



(c) Screen Traveler, from Gendreau

although they are of a different origin.

Most of the inhabitants of Trinidad are Negroes and mulattoes—the descendants of Negro slaves brought over from Africa to work on the sugar plantations. There are also many Hindus who have come from India in recent years to work in the sugar-cane fields.

Cacao and sugar cane are the most important products of the island, but coconuts also furnish a regular income for a few people. The coconuts are used for food. The meat of the nut, called copra, is also the source of coconut oil, which is used in the manufacture of the finer kinds of soap.

The most interesting section of Trinidad is about sixty miles from Port-of-Spain, the capital. There is Pitch Lake, a field of asphalt covering nearly 200 acres of land. Sir Walter Raleigh discovered it and used the pitch on his ships to keep them from leaking. It is still an important source of asphalt, though it must now compete with asphalt made in oil refineries.

Flying northward. Of the many routes we decide to take the one to San Juan (sǎn hwǎn'), Puerto Rico. It follows the

curve of the islands, and one is almost never out of sight of land. As one island drops behind, another rises out of the water ahead. Some islands are huge, others only tiny specks, some merely coral reefs with palm-lined shores.

We pass over the French island of Martinique. In 1902 the volcano of Mt. Pelée (pě·lǎ') erupted after years of inactivity causing terrible destruction. Forty thousand lives were lost and many villages were destroyed, including St. Pierre, the principal town. All the ships in the harbor were either burned or sunk. The inhabitants now conduct tourists on visits to the ruins of several villages.

We fly over the interesting Dutch island of Saba (sǎ'bǎ). From the water's edge to the top of this island is a climb up about 1,000 rock-hewn steps on the side of an old volcano. On top, one is greeted by a most surprising sight. Down in the crater of the dead volcano lies a settlement of over 1,000 people. It is called *The Bottom*. How amazing that anyone should want to live inside a volcano! But these Dutch people do not seem to mind. They are happy and contented in their sheltered bowl.



This scene is typical of many farm homes in the lowlands of the West Indies. The thatched roofs are very steep and slanted to allow the heavy rains to run off.

James Sawders

Our airplane now takes us to the Virgin Islands, most of which are owned by the United States and some of which belong to Great Britain. The United States purchased its part of the Virgin Islands—three main islands and many small rocky ones—from Denmark in 1917 for \$25,000,000. These islands have valuable air bases and a coaling station for ships.

What sort of climate do the West Indies have? Our map shows us that the Tropic of Cancer extends through the West Indies just north of Cuba. Most of the islands are thus in the equatorial region. Here the climate is always warm; snow and frost are unknown. The northeast trade winds, blowing in from the ocean, bring heavy rainfall during the summer—sometimes as much as sixty inches. Then the weather is hot and damp. But during the remainder of the year it is drier and cooler.

Sometimes terrible storms, known as *tropical hurricanes*, visit these islands in the autumn. Frequently they continue on to Florida and to other parts of the United States along the Gulf of Mexico and the Atlantic seacoast.

These storms are really great whirling, twisting masses of air, hundreds of miles

across. The wind whirls at a tremendous speed, often more than 100 miles an hour. The storms strike the islands with terrific fury, uprooting trees, wrecking houses, and leaving wide trails of destruction and death.

There is much similarity among all these islands. The climate of one is just about the same as the climate of the others. They raise about the same products—sugar cane, coffee, tobacco, bananas, coconuts, and cacao. These tropical products find a ready market in the United States and Europe, where they are exchanged for manufactured goods. What would be some of the manufactured goods needed in these islands?

Who live in the West Indies? People from all parts of the world live on these islands. Before the Spanish came, the Indians were the only inhabitants. But the Spaniards made slaves of the Indians and worked them so hard that before long most of the Indians died.

The Spaniards, however, had to have workers on their plantations and in their mines; so they imported Negro slaves from Africa. Today about half of the people in the West Indies are Negroes or mulattoes.

PUERTO RICO—THE "RICH PORT"

What is the history of Puerto Rico? After a few hours of flight over a still, blue sea, we reach the island at which Columbus stopped to get fresh water on his second voyage to the New World. With him was Ponce de Leon, who liked the island so much that he asked to be made its governor. He was still governor of Puerto Rico several years later when he started out to find the "Fountain of Youth" in Florida.

For 400 years the Spanish ruled this charming semitropical island. After the war between the United States and Spain, the island passed under the "Stars and Stripes." In 1917, Puerto Ricans were made citizens of the United States.

What is the geography of Puerto Rico? We are flying across the island to San Juan, the capital. Below, the green fields and forests form enchanting vistas. It is like a miniature Switzerland. Houses cling to mountainsides. Villages nestle in the valleys. Rising over a ridge, we see water on two sides of the island: to the north is the Atlantic Ocean, to the south

is the Caribbean Sea. Puerto Rico is about thirty-five miles wide and one hundred miles long.

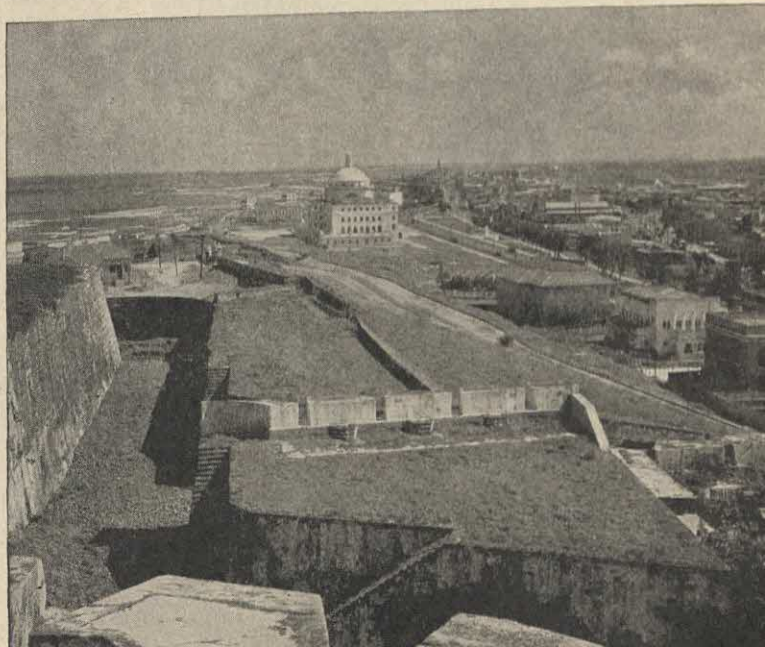
On this small island live about 1,800,000 people. It is the most densely populated rural area under the American flag.

The United States has done much to improve the health of the people. Many schools have been built, but still there are not enough for all the children. Most of the inhabitants speak Spanish, but English is stressed in all the schools. As in other Caribbean countries, some of the people are white, some are Negro, and many are of mixed blood.

Why are so many Puerto Ricans poor? Most of the Puerto Ricans depend on farming for a living. But they do not own their own farm land. They work on land owned by large corporations and wealthy individuals. Wages are low, and on numerous days there is no work to be had. It is said that the island is overpopulated. Some people think that if the land were divided into small farms, everybody could earn a good living.

In colonial days, the fort of San Juan at Puerto Rico was one of the strongholds of the Spanish; today, the fort is a favorite spot for tourists. However, Puerto Rico is still a stronghold, now an important air and naval base for our own country.

James Sawders



The most important crop is sugar cane. Citrus fruits, tobacco, coffee, and bananas are also important. Not enough vegetables are raised for the inhabitants. Rice, corn, dried meat, and salt fish, which are the principal foods of the poor people, are imported.

Our plane circles over San Juan, which is one of the oldest cities in the Western Hemisphere. It is a busy, modern city with attractive suburbs. The old section with its narrow streets, stone fortresses, and thick walls of masonry built by the

Spaniards 400 years ago are especially interesting. We visit the Casa Blanca (kă'sä blăn'kä), the old home of the governors, and the dark dungeons in El Morro (ĕl mōr'rō) Castle.

We see plenty of American soldiers and sailors in Puerto Rico. Millions of dollars have been spent on the naval base at San Juan. On the island are army camps and air bases. All these bases play a very important part in protecting the Panama Canal and our trade routes with Latin America.

HISPANIOLA—ISLAND HOME OF TWO REPUBLICS

From San Juan we make a short jump straight west to the island of Hispaniola, on which Columbus made his first settlement.

What is the geography of this island? Hispaniola is now divided between two nations, the Dominican Republic and Haiti (hă'tī). Haiti occupies the western third of Hispaniola, and the Dominican

Republic the eastern two-thirds. The surface of Hispaniola is mountainous. It reminds one of a piece of crumpled paper.

Sugar is the most important crop on this island today, just as it was in Spanish colonial days. Coffee, cacao, tobacco, coconuts, and bananas are also valuable export products. In the dry interior there are several large cattle ranches.

What makes the capital of the Dominican Republic famous? Soon we come to the historic old port of Ciudad Trujillo (syōō·thăth' trōō·hē'lyō). Still standing are gates of the old city wall. Most interesting of all is the cathedral, started in 1514, the oldest church in the New World.

After a hurricane in 1930, thousands of homeless people took shelter in this cathedral until houses were built for them with money sent by the American Red Cross.

This West Indian woman is not doing a balancing act. She always carries her burdens on her head, as do many of the native women in this part of the world.

Courtesy Pan American Airways System



In almost any city in the West Indies, one may find a statue of Columbus. This one, in Ciudad Trujillo, stands before the ancient cathedral in which the remains of Christopher Columbus are supposed to be buried.

Ewing Galloway



We visit the beautiful tomb where the remains of Christopher Columbus are supposed to be buried. Twice a year the tomb is opened for the public. On this occasion, the elaborate ceremony requires the presence of the mayor of the city, the secretary of foreign affairs, and the archbishop. Each one has a different key, and all three are needed to unlock the tomb.

Why do the people of Haiti speak French? The first Europeans to settle the western part of the island of Hispaniola were pirates. French and English pirates hunted the wild hogs and cattle that had strayed from the Spanish settlements. They barbecued their meat over wooden frames called *buccans*. Thus the pirates became known as *buccaneers*. Sometimes

they would sell the hides and the fresh meat to passing ships.

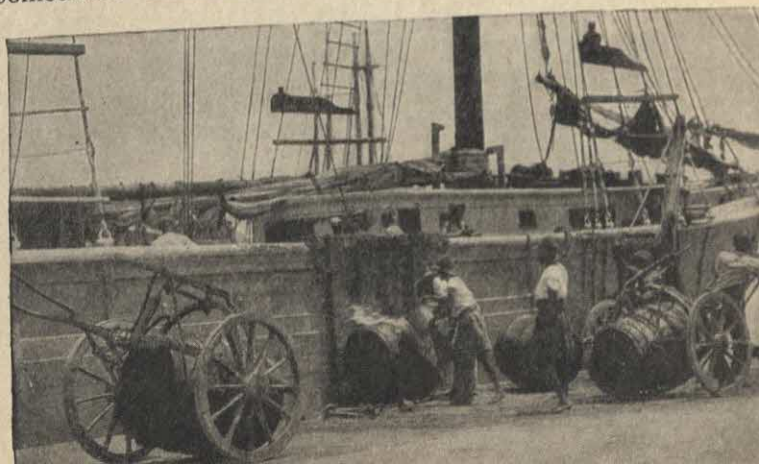
In time, the French pirates drove the English pirates out. The French colony eventually became one of the richest European settlements in the West Indies.

Why is Haiti called a Negro republic? To work the plantations, Negro slaves were brought in from Africa. By 1789 there were eleven slaves to every white person in Haiti.

Then in France, revolutionists overthrew the king and declared "liberty, equality, and fraternity" for all. Mulattoes and Negroes, free and slave, revolted against their white rulers in Haiti and set up a Negro republic. Today there are few white Haitians, and the Negroes and mulattoes have control of the government.

Among the exports for which the West Indies have long been famous is molasses. This is a by-product obtained in the manufacture of cane sugar. West Indies molasses is used in the manufacture of stock feed, of fertilizer, and of rum.

James Savaders





Courtesy Pan American Airways System

The chief crop of Cuba and the West Indies is sugar cane. After the leaves are stripped off, the stalks are chopped into shorter lengths and hauled to the sugar mill.

CUBA—LAND OF SUGAR CANE

A few minutes after leaving Haiti, we fly out over the Windward Passage. This narrow body of water between Hispaniola and Cuba is an important passage on the route from Europe to the Panama Canal. Our navy is constantly on guard in this passage during time of war.

We see from our maps that Cuba is the largest island in the West Indies. It is 785 miles long and varies from twenty-five to 125 miles in width. It is long enough to reach from Detroit to Boston.

Why do American tourists go to Cuba? Between the months of January and May thousands of American tourists visit Cuba. It is a delightful winter resort. Rainfall at that season is slight, the sun shines brightly, and the temperature seldom falls below 65°. The Cuban government encourages tourists to come there. The island is proud of its pleasure resorts,

its wonderful resources, and its thrilling history.

What was Cuba's early history? Cuba was one of the first islands discovered by Columbus. Not long after that, Cuba became an important colony of Spain. But the Spanish rule was almost always bad. Many times the Cubans revolted against the Spanish. But the people of Cuba were too few to overthrow the royal garrisons, even when the other Spanish colonies won their independence.

Why did the United States engage in a war with Spain? In 1895 there was another revolt. Many of the revolutionists were killed and others were thrown into prisons. Even civilians were put in concentration camps, where they died of disease and starvation.

American newspapers carried big headlines about these Spanish atrocities. The

people of the United States became so thoroughly aroused that our government protested to Spain against such cruelty. Americans began to feel that the Cubans should receive help in their struggle for independence. And then something happened which started a war!

In the spring of 1898 the United States battleship *Maine* was in the harbor at Havana. One night, as the ship lay quietly at anchor, a terrible explosion blasted a hole in her side. Immediately the *Maine* began to sink. In the explosion and the sinking of the ship, 260 American sailors lost their lives.

Because the American people believed the Spanish had purposely blown up the ship and because they disapproved of the cruel treatment the Cubans had been receiving, our Congress quickly declared war on Spain. The Cubans were overjoyed. Cuban and American soldiers were soon fighting side by side.

How did Cuba become free? The Spanish-American War lasted a little more than three months. The Spanish navy was defeated by the United States navy at Santiago de Cuba (săn'tê-ă'gō dă kōō'bă) and also in the Philippine Islands. After the Spanish army surrendered, peace was declared. Puerto Rico, the Philippine Islands, and Guam were turned over to the United States in exchange for \$20,000,000 paid to Spain. And Cuba received her freedom.

Historic Santiago. Our plane circles over Santiago, the old city that was the first capital of Cuba. In the distance can be seen the ancient Spanish fortress that

guards the narrow entrance to this magnificent bay.

Through that narrow entrance sailed the fleet of Cortés on its way to the conquest of Mexico. A century later, the pirate Henry Morgan damaged the fort so much that it had to be rebuilt. One of the heroic deeds of the Spanish-American war was Lieutenant Hobson's effort to sink an old vessel in the narrow channel so as to bottle up the Spanish fleet in the harbor. When the Spanish ships did steam out they were sunk, one after the other, by the withering gunfire of American sailors.

What minerals are found in Cuba? In the mountains near Santiago, copper has been mined for 400 years. There are also iron mines that produce rich ores for European blast furnaces, and for steel plants along our Atlantic coast. Cuba's mines also produce manganese and chromium. A little manganese added to steel



This ceiba tree is famous because the treaty of peace that ended the Spanish-American War was signed under it.

James Sawyers

makes the steel much stronger. Chromium is the metal that keeps iron and steel from rusting. Both of these metals are extremely valuable in time of war.

What kinds of lumber are exported from Cuba? About one sixth of Cuba is covered with forests. The hardwoods are very valuable because they resist termites and other insects. Cedarwood is used for cigar boxes and pencils. Mahogany and ebony are among the island's exports. The huge mahogany logs are hauled to the sawmill on carts, drawn by several yoke of oxen. Most of the carts have only two wheels, but the wheels are eight feet high.

Why did the early settlers in Cuba raise cattle? In Santiago we change planes for Havana. Presently we fly over a low range of hills and come to rolling, grassy plains. When the Spaniards came to Cuba, they found wonderfully rich grass and open country for raising cattle. So the king granted large cattle ranches to his followers. For years Cuba was a scantily populated cattle country. Today there are more than 5,000,000 cattle in Cuba. Important among the products of the cattle industry are butter and hides, much of which is shipped to the United States.

Arriving at Havana. Before our plane lands, our pilot makes a wide circle over the harbor. What a magnificent city Havana is! The capitol building, of gleaming white marble, is especially beautiful. Green palms line the white roadways, and beautiful parks are seen everywhere.

The harbor is crowded with ships from all over the world. Freighters are taking on cargoes of sugar, tobacco, molasses, and fruit, having delivered cotton goods,

foodstuffs, machinery, and automobiles.

How did Cuba become a sugar-producing country? The development of Cuba was sadly neglected while it remained a colony of Spain. Only three per cent of the land was cultivated, and less than half of the cultivated land was in sugar cane. Small quantities of yams, tobacco, corn, bananas, and vegetables were raised.

When the United States and Cuba signed a treaty in 1903, Cuban sugar received a favored place in the United States sugar market. It was subject to a lower import duty than sugar from other countries, except our own possessions. As the United States agreed to keep peace in Cuba, North Americans invested a billion dollars in modernizing its cities and developing its industries.

Efficient machinery in the sugar mills greatly reduced the cost of changing cane into sugar. Sugar-cane plantations spread all over the island. The red porous soil, ample rain, the sunny climate, and plenty of workers made the raising of sugar cane profitable. In the course of thirty or forty years, Cuba came to produce more refined cane sugar than any other country in the world. Since sugar is so important, Cuba is said to be a one-crop country.

On a sugar-cane plantation. We drive out into the country to visit a sugar plantation. First we stop near a field that has been plowed and prepared for the new crop. Sugar cane is not usually grown from seed, as most other crops are, but from stem cuttings. Short pieces of cane are laid in wide furrows. Each piece of cane has several buds, from which the new cane stalks grow.

Near by is a field where the plants are a few inches high. Barefoot men are at



H. Armstrong Roberts

In colonial days the Spanish built numerous forts to protect their important harbors in the West Indies from pirates. Several forts, including the one at San Juan and this one at Havana, were named El Morro Castle, meaning a castle built on a hill. The famous castle at Havana stands guard over the entrance to the city.

work cutting out weeds with hoes. In other fields the cane stalks are already about two feet high. Cultivators pulled by oxen are used to plow the ground about these plants. Farther along we come to fields of silvery-green cane much higher than a man's head. This cane is from twelve to eighteen months old and is just about ready to be cut. The plantation owner likes to have ripe cane ready to cut all the year round.

We get out of the car at a field where men are cutting the cane with long, heavy knives. It is cut close to the ground, and the leaves are removed with a hook on the back of the knife. The stalks are loaded onto a two-wheeled cart pulled by several yoke of oxen, and taken to the railroad which runs to the sugar mill.

One of the workmen hands us a stalk of the cane. It looks like bamboo. We peel back the tough, flexible skin from one of the joints and take a bite of the

white fibrous pulp. It is juicy and sweet, with a slightly acid flavor.

Soon after the sugar-cane stalks have been cut and taken from the field, new plants sprout from the roots of the old stalks. In about a year these second stalks are ready to be cut. Four crops of cane, sometimes more, are harvested from a field before it is plowed and new plants are started again.

A visit to a sugar mill. We follow a load of the heavy cane to the mill. There the cane is drawn through heavy steel rollers which crush out the juice. After the juice has all been crushed out, the stalks are taken to the boiler room, where they are used for fuel.

From the rollers, the juice goes into huge vats, where it is purified and boiled down to a thick molasses. This molasses is placed in a bowl-like container, which has a fine wire mesh for its outside wall. The container turns around and around

at a terrific speed. The thinner part of the molasses escapes through the fine wire mesh, while the thicker part stays in the bowl and turns into crystals of raw sugar. Part of the molasses, left over after the raw sugar is made, is sent to the United States to be made into alcohol for munitions, antifreeze solutions, and other purposes.

The raw sugar is taken to big refineries, where it is refined into the cane sugar we buy at our stores. The mill we visit is owned by a giant corporation that manufactures candy in the United States. More than half of the Cuban sugar mills are owned by United States businessmen, and most of Cuba's sugar is shipped to the United States.

What makes Cuban tobacco famous? Back in Havana we visit a cigar factory. "Before Columbus ever saw this island," says the proprietor, "the Indians of Cuba raised tobacco and made cigars." Taking part of a leaf that one of the workers is using to wrap a cigar, he continues. "This leaf was grown under the shade of cheesecloth. It comes from a district in the extreme western part of the island. That

district is about ninety miles long and ten miles wide. When the soil of that district is properly cared for, it produces the finest tobacco in the world."

One man can care for only two acres of tobacco. The young tobacco plants are set out in early November and are ready to be harvested in January. Much care is required in cultivating the plants and curing the leaves. When the United States put a high tariff on imported cigars, some of the Cuban factories moved to Florida. But Havana cigars are still shipped to all parts of the world.

Why are there poor people on the rich island of Cuba? Cuban workers, we are surprised to learn, often receive very low wages. When the price of sugar is low, the farm hands can scarcely earn a living. Even in good times there are many days on which there is no work to do. Most of the good farm land is in the hands of a few rich people. Many of the owners are not Cubans. In such cases the profits from the land do not stay in Cuba but are sent abroad.

How does the Cuban government try to help the people? The Cuban constitu-

Havana, the largest city in the West Indies, is also one of the most beautiful. Its broad palm-lined boulevards, its picturesque plazas, its landlocked harbor, its charming residences and fine hotels, its gleaming white government buildings, all together make a wonderland of beauty. This view of the Cuban Capitol is an example of Havana's loveliness.

Courtesy Pan American Airways System



tion of 1940 gave a great deal of power over agriculture, industry, and commerce to the government. Large plantations may be divided into small farms and sold to the workers. Old-age insurance was provided for all. A forty-four hour week

and vacation with pay was given to workers. Equality of races was established by law. Women received the right to vote. Rural schools were ordered to be built. Under this constitution all Cubans hope to prosper.

AMERICAN MEDICINE TO THE RESCUE

As we travel through the streets of Havana, we are impressed with the extreme cleanliness to be seen everywhere. When we remark about it, our guide tells us that Havana was not always so clean.

In the months that followed the Spanish-American War in 1898, American soldiers stationed in Cuba had to overcome another enemy much more deadly than the Spanish. It was *yellow fever*.

For centuries the peoples of tropical Latin America had been dying by the thousands of this terrible plague. Serious epidemics of yellow fever had even occurred in New Orleans, and in other cities of the southern United States.

It was a mysterious and deadly disease. No one knew how it was transmitted. Of those who got the disease a very high proportion never recovered. In the seventeenth century, the English sent a regiment of 1,500 men to one of their West Indian islands. Within a few short weeks, 1,400 died of yellow fever, or yellow jack, as it is also called. In one epidemic in Rio de Janeiro in 1898 over 98% of all the people who contracted the disease died.

This was the disease that threatened to destroy the American army in Cuba. Had it not been for an unknown Cuban doctor, a few brilliant American army physicians, and some very brave American soldiers, this war against an invisible foe might have been lost.

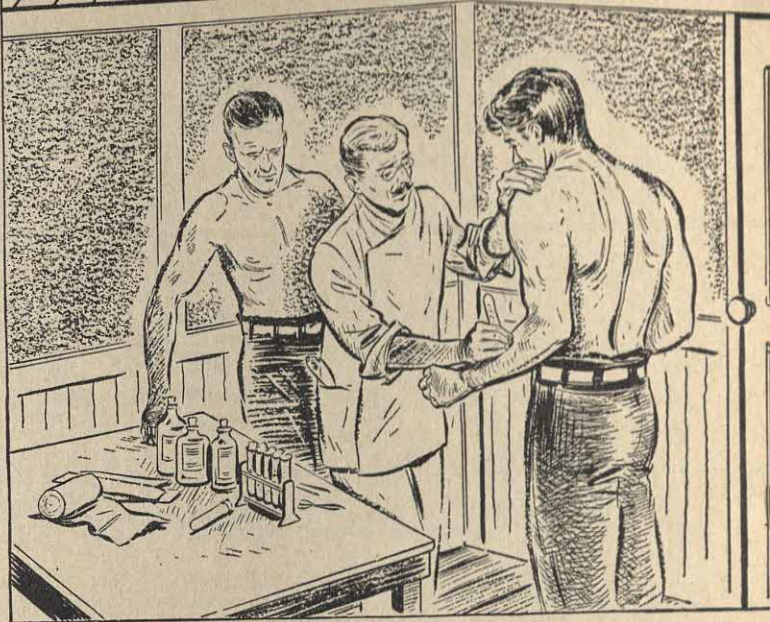
How was the "yellow scourge" finally conquered? The man who started the American doctors on the right trail was Dr. Carlos Finlay of Cuba. A good part of his life had been spent studying yellow fever and trying to find its cause. He finally came to the conclusion that the disease was carried by a certain kind of mosquito. Unfortunately, no one would listen to the unknown doctor in far-off Cuba.

Then Army Headquarters in Washington, D.C., sent Dr. Walter Reed to Cuba to study the situation. He learned of Finlay's work and decided to make an experiment. He would prove once and for all whether yellow fever was transmitted by mosquitoes. He would test this theory by allowing infected mosquitoes to bite persons who had never before had yellow fever.

But who would submit himself to such a terrible peril? The doctors decided that they must risk their own lives before they could ask others to risk theirs. A number of mosquitoes were first allowed to feed on people ill with yellow fever. Ten days later Reed's assistants, Carroll and Lazear, applied the infected mosquitoes to their arms. Within a few days Dr. Carroll was ill. Yellow fever! Luckily, he recovered.

Then Dr. Lazear was bitten by a mosquito while working in the yellow fever

There was a tense moment, as the American doctor applied the test tube filled with infected mosquitoes to the arm of the American soldier.



ward of a Cuban hospital. Eleven days later he was dead. Yellow fever!

Dr. Reed was by this time convinced that they were on the right track. But much more proof was needed.

Where could one get volunteers for a test such as must now be made? Dr. Reed sent out a call to the boys in the American army in Cuba. Two privates were the first to volunteer. Then man after man came forward, ready to risk his life in the hope that others might thereby be saved.

The great experiment began. A number of men were placed in screened cottages. Infected mosquitoes were allowed to bite the men. For several fearful days they waited. Then suddenly they were writhing with the agonies of yellow fever. The proof seemed conclusive.

But Dr. Reed was still not satisfied. In a near-by cottage several men were making another experiment. They were wearing clothes and sleeping in bedding that had been used by persons who had died of yellow fever. Anxiously Dr. Reed watched this little group of men. But not

one had contracted the terrible disease.

Here then was the final proof that he needed. The mosquito was indeed the carrier of yellow fever. Dr. Carlos Finlay, the Cuban physician, had been right.

However, just the knowledge that mosquitoes were transmitting yellow fever was not enough. American soldiers were still dying by the hundreds. Upon the scene came another American army doctor, William Gorgas. He was appointed sanitary officer of Havana, then one of the plague spots of the earth. Every known tropical disease, in addition to yellow fever, was prevalent in Havana.

Within six months his men had completely changed the city, quarantined the sick, installed plumbing, destroyed the breeding places of mosquitoes, visited every house, office, and yard. Finally, Havana could boast that it was the cleanest tropical city in the world.

But Gorgas was not through. The Panama Canal had just been started, and the workers were beginning to die of yellow jack. Immediate action was necessary. Gorgas was sent to Panama to



To know that the mosquito was the carrier of malaria and the terrible yellow fever was not enough. The mosquito had to be destroyed. Dr. Gorgas and his men spent months building drainage ditches and spraying swamps to destroy the breeding places of the mosquitoes.

clean up this pesthole. The fact that he succeeded made the canal possible. By the time the canal opened, the annual death rate for the Canal Zone was six out of every thousand inhabitants. The average for the whole United States was then about fourteen to every thousand.

Could such a record as had been made in Cuba and Panama be repeated throughout all of disease-ridden Latin America? Dr. Gorgas was invited by the International Health Board, founded by the American multimillionaire, John D. Rockefeller, to help fight yellow fever. From that day to this, the fight against yellow fever and other tropical diseases has continued, and yellow jack has practically disappeared.

So it might be said that the first really good neighbors of the Western Hemisphere were the doctors. By their untiring fight they have saved the lives of millions of people in Latin America.

Part of the credit goes also to farseeing Americans, like Rockefeller, who have

contributed vast sums of money to make the world a healthier place in which to live.

What improvements are still needed? Unfortunately, much yet remains to be done. The common people of Latin America are desperately poor. Wages are low; food is often scarce; in many regions medicine, doctors, and hospitals are unknown. Education is still lacking in small villages and remote country districts, even though thousands of new schools are being built every year.

Partly as a result of poverty and poor diet, partly as a result of lack of education, and partly as a result of unsanitary living conditions, the health of the people of Latin America is very bad. The death rate for such diseases as measles, tuberculosis, smallpox, and diphtheria is many times higher than the death rate for these same diseases in the United States. Infant mortality is much greater than in our country. Everywhere the people are subject to tropical diseases and fevers,

such as malaria, which sap their energies.

So even though Latin America has many fine doctors and many hospitals of the highest standards, even though certain countries like Chile have outstanding health programs, even though most of the governments of Latin America are appropriating hundreds of thousands of dollars to better the health of their people, much yet remains to be done.

How can we co-operate with our Latin-American neighbors? Latin Americans welcome the co-operation of our men of science, our doctors, our sanitation experts, our educational leaders. The poorer countries rejoice at any aid we give them in building hospitals and equipping medical schools. If we are to be good neighbors, we must not fail them.

In 1945 delegates from all the nations of the Western Hemisphere met at Mexico City to discuss the best ways of settling disputes among themselves and with foreign nations. They decided that war was the worst way to settle disputes; that they would respect one another's sovereignty; that if any nations became involved in a dispute with one another, they would discuss the problem and come to an agreement peacefully; that if any American nation became involved in a serious dispute with a foreign power, the other American nations would rally to its defense. These agreements were called the *Act of Chapultepec*.

In 1947 the American nations met again at Rio de Janeiro. There they gave their full support to the United Nations, agreeing that their pledges for defense of the Western Hemisphere are to last only "until the Security Council has taken measures necessary to main-

tain international peace and security."

Thus the American nations showed that they were not only united for their own defense, but that they were also willing to co-operate with the rest of the world in making the United Nations successful.

And as we talk of co-operation, we must remember that we need our neighbors to the south just as they need us. We need many of their products—coffee, sugar, cacao, chicle, bananas, coconut oil, rare woods, wool, nuts, medicines like quinine, rubber, industrial diamonds, tin, copper, iron ore, mercury, lead, manganese, chromium, bauxite, nitrates, carnauba wax, sponges . . . the list is almost endless.

So it is easy to see that we get value received for any help we may give our southern neighbors. Our friendship and understanding can therefore be built upon foundations of honest co-operation and mutual respect.

We pay a visit to the *Pan American Peace Tree* just before catching our clipper plane for Miami, Florida, and home. Leaving the capital we walk out into *Fraternity Park*. In a beautiful setting of royal palms, sparkling fountains, and flowering gardens is the Pan American Peace Tree. It is a thriving *ceiba*, or *God tree*.

When the Sixth Pan American Congress met in Havana in 1928, representatives of the twenty-one American republics planted it with much enthusiasm. Soil from each of the twenty-one countries was blended together to nourish its roots. Now as it grows, the Pan American Peace Tree is a visible symbol of the unity of the Americas.

YOUR ACTIVITY PROGRAM

Now that the tour to the homes of Our Southern Neighbors has been completed, everyone should have a real enthusiasm to meet some of these neighbors at some time. In order that we may better understand each other when that opportunity comes, let us do all the things we can to remember what we have learned about these friends and to enrich our understandings concerning them.

Solving the Problems

A. *Recognizing the Problems*

1. Copy the twenty-seven problems included in this unit in your notebook.
2. Look over the problems concerning each island and mark by a star the island that you think has the most interesting problems. Be ready to explain your choice.

B. *Gaining the Understandings*

1. The correct performance of the following true-false exercise will help you clinch the understandings gained from this unit on the West Indies. On a separate piece of paper write the numbers 1 to 20. After each number that corresponds with a true statement put *Yes*. After each number that stands for a false statement put *No*.

1. Trinidad is an important base for the Pan American Airways.
2. The West Indies are west of South America and are therefore important as steppingstones to the western part of our country.
3. The United States is protecting the Panama Canal by blocking it so no ships can go through it at all.
4. Snow and frost are unknown in the West Indies.
5. Most of the inhabitants of the West Indies are Indians.
6. The people of Puerto Rico are citizens of the United States.
7. Puerto Rico is a flat, level island where few people live.
8. Many of the Puerto Ricans are poor because they do not own their own farm land.

9. Hispaniola now belongs partly to Portugal and partly to France.

10. The language spoken in Haiti is Spanish.

11. Haiti is a Negro republic because the slaves took over the government after the French Revolution.

12. Cuba was discovered by Columbus and was under Spanish rule for many years.

13. The United States went to war with Spain in 1898 because we did not like the way Spain treated the Cubans and because we thought Spain had sunk one of our battleships.

14. The largest diamond mines in the world are in Cuba.

15. The early settlers in Cuba raised cattle because grass was plentiful, and the king granted large cattle ranches to his followers.

16. Cuban tobacco is famous because the soil there produces the finest tobacco in the world.

17. The government of Cuba is trying to improve conditions there and has made some new laws that are expected to help Cuba prosper.

18. Yellow fever was stopped by making everyone shut their windows to keep out mosquitoes.

19. Latin Americans need to improve health conditions in many places.

20. We cannot help Latin America because the problems are too great.

Enriching Your Understandings

Do as many of these activities as you have time for.

1. Read what you can about life on the various islands making up the West Indies. The class may be divided into committees, each committee studying a different island. End the study with a series of illustrated reports.

2. Find out about the arts and crafts of the people on the islands and, if possible, secure samples of the jewelry made out of their native seeds to bring to school and exhibit.

3. Sing the national songs of the West Indian republics.

4. Make separate lists of the islands that belong to France, to England, to the Netherlands, to the United States, and those that are independent.

5. Make a map of the West Indies on unbleached muslin with colored crayons. Indicate the spots where our air and naval bases are. This colorful map may be ironed with a hot iron to make the colors fast. Then it may be used for a wall hanging.

6. Have each member of the class hand in several questions on the West Indies to a committee of three, chosen by the class. Have the committee choose the best questions for a Quiz Program arranged like an old-fashioned "spell down," with two sides of the room competing to answer the questions correctly.

7. Make a list of the tropical fruits, vegetables, and plants grown in the West Indies.

8. Add the stamps and coins of the islands to your collections.

9. From your outside reading find some dramatic incidents from the history of some of the islands of the West Indies and act out the story for another room. It might be a story of the buccaneers of Haiti, the story of Columbus on one of his voyages touching the West Indies, or it might be a story concerning modern life on one of the smaller islands.

10. Make a list of some of the articles we make from the copper, iron, manganese, and chromium we get from Cuba.

Applying Your Knowledge

Write a paper telling what the West Indies mean to us, what we mean to them, and why we must do our utmost to remain good neighbors.

The following questions may help you think of other points.

Where is the spot we need to watch most in time of war?

How close to the mainland of the United States are the West Indies?

What friendly nations have possessions in the West Indies?

What have some of the other nations done to get a foothold there?

What products do we get from the West Indies that are important to us?

In what ways have we helped the West Indies?

In what ways can we do more for our mutual comfort and well-being?

Forming Opinions and Attitudes

1. Who performed the greatest service to the tropics, the doctor who discovered the cause of yellow fever or the one who taught people how to control its spread? Read more about the men who helped in this project and discuss them, giving your opinion about the importance of their service.

2. Which of the following things do you think should be done first to improve conditions in the rural areas of the West Indies? Discuss this problem.

Educate the people by building more rural schools

Improve sanitary conditions

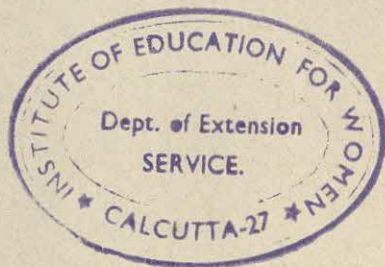
Send more food

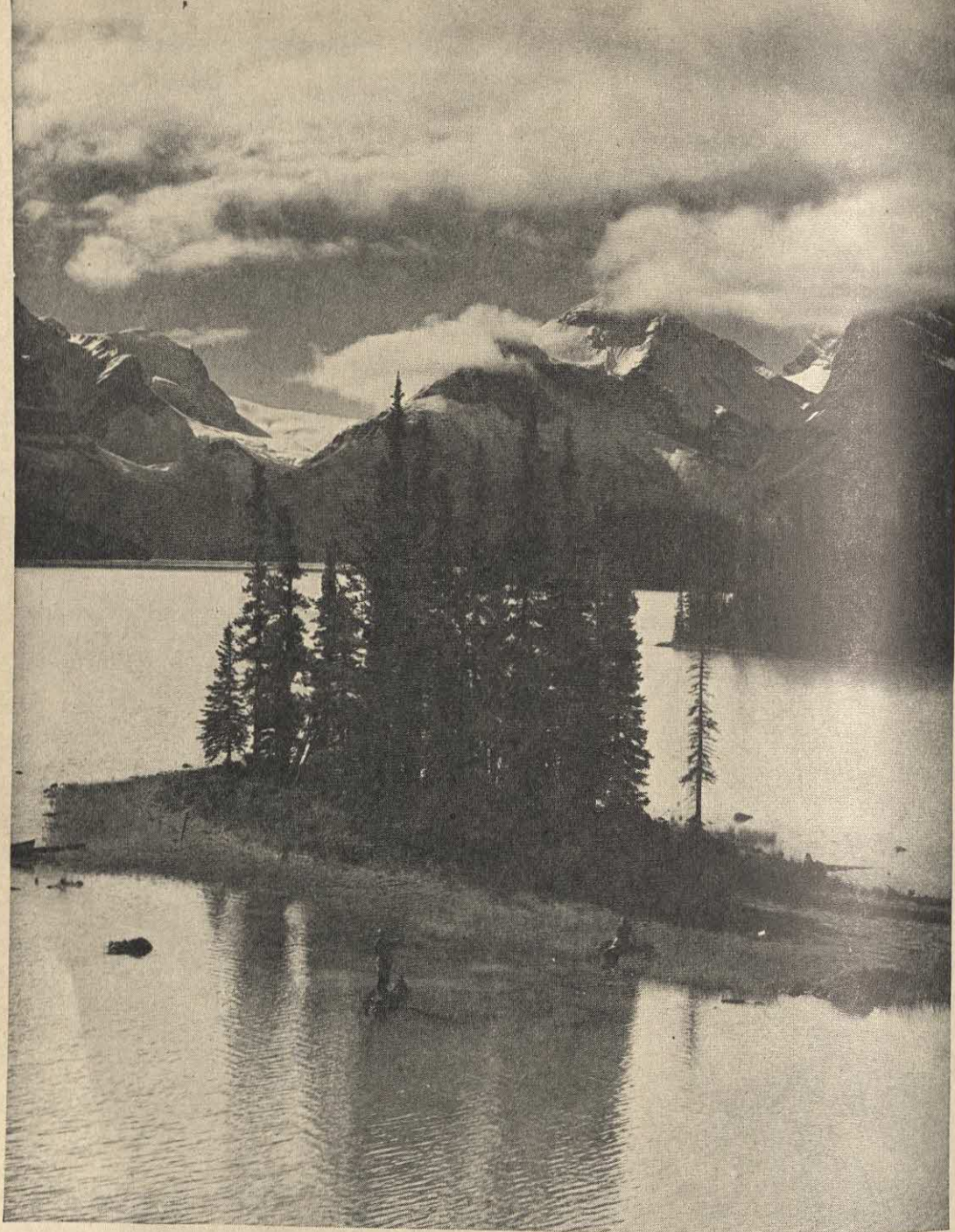
Get rid of harmful insects

Supply money

3. Give your opinion about the need for cooperation between our country and our neighbors to the south. Do we need them as much as they need us? What can we teach them and what can they teach us? How can we become better neighbors? If you have an attitude on this subject, what can you do to give it expression?

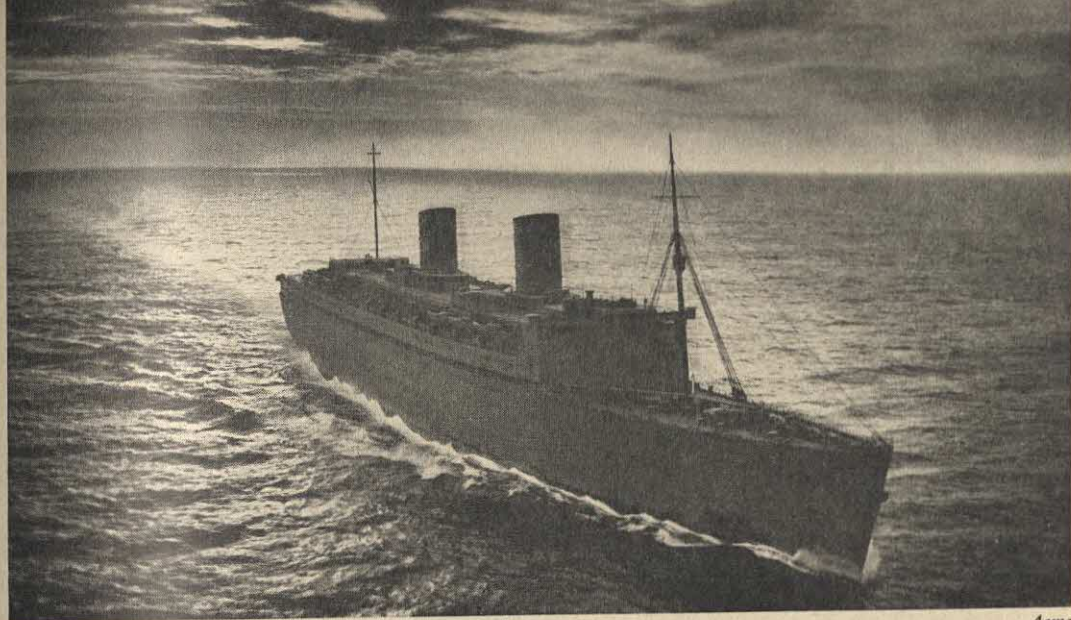
OUR
NORTHERN
NEIGHBORS





Canadian Pacific Railway

Our largest northern neighbor is Canada—a land of many beautiful mountain lakes which provide good fishing and camping for summer vacationers from the United States. Snow-covered mountains and tall evergreen forests are familiar sights throughout the western part of the country.



Acme

As our ship steams northward in the sunset glow, we leave the warm lands of our southern neighbors behind. Our ocean liner—more than 1,000 feet long—is a luxurious floating hotel. We are looking forward eagerly to visiting our American neighbors north of the border.

10. *The Atlantic Story*

We left Miami in the early evening and now, before retiring to our state-rooms, we are having a last look over the calm sea around us. The dark blue sea and soft, warm air tell us that we are still near the tropics. But we are leaving the warm south behind us as we travel north with the *Gulf Stream*, to visit some of our other American neighbors.

The wake of our ship is a trail of foam behind us, here and there glowing faintly violet along the curling edge of the water. We gaze and gaze, and seem never to tire watching it.

Now we hear a voice, and as the speaker comes up to the deck rail, we see that it is Mr. Anderson—a Canadian tourist whom we met soon after boarding ship. He has been talking with some

members of our party. Soon our new friend is telling us about the Gulf Stream, a warm river of water which flows right through the surrounding ocean.

What is the **Gulf Stream**? "The Gulf Stream flows through the waters of the Atlantic Ocean just as a river flows through land," Mr. Anderson tells us. He suggests that we follow the course of the Gulf Stream on our maps. "We notice that an ocean current flows westward along the equator from the 'bulge' of Africa. It is known as the *North Equatorial Drift*. Columbus followed this drift across the wide expanse of the Atlantic to the West Indies. See how it divides into several separate streams upon reaching the West Indies.

"Now notice how these streams join again to form the Gulf Stream just off



This map shows the flow of the Atlantic Ocean currents. Do you see why the Gulf Stream warms the lands past which it flows?

climate. Even in winter at the northernmost point reached by the Gulf Stream the temperature of the water does not often drop below 40 degrees.

The next day our new friend, Mr. Anderson, tells us that he retired from the exporting business in Halifax, Canada, two years ago. "Now I am seeing all the things I didn't have time for when I traveled on business," he explains. We suggest that perhaps he will tell us about some of his journeys. Right now we would like to learn more about the great expanse of ocean over which we are traveling.

"For many centuries," our friend tells us, "the Atlantic Ocean was a great barrier which enclosed the world of the Europeans. Civilization had spread over the lands around the Mediterranean Sea, northward across the continent of Europe, and westward to the shores of the Atlantic. There, even the most adventurous of the Europeans stopped.

Who helped to change the Atlantic Ocean from a barrier to a highway? "We all know the story of Columbus and the many brave explorers who followed him, men such as Cabot, Magellan, Cartier, and Hudson. In the years that followed, this trickle of adventurous men became a stream, the stream a flood, and eventually hundreds and thousands of people were crossing the ocean to the rich lands of promise beyond. So the Atlantic was no longer a barrier, but had become a great highway between the old world and a new."

the coast of Florida. Here, where our ship is now—just east of Florida—the Gulf Stream is about forty miles wide and travels northward at a little over three miles an hour. As it proceeds north, it gradually loses speed.

"From Florida to Nova Scotia the Gulf Stream follows the coast, gradually becoming wider. Can you see on the maps where it turns east as it meets the cold *Labrador Current* near Newfoundland? The Gulf Stream splits up before it reaches Europe: one part of it turns south and rejoins the North Equatorial Drift near the coast of Africa; the other part, called the *North Atlantic Drift*, washes the shores of Iceland, the British Isles, and Norway, and finally is lost in the Arctic seas."

Why is the Gulf Stream important? Mr. Anderson tells us that certain lands far to the north, almost on the Arctic Circle, are made warmer by heat which the Gulf Stream carries from the tropics. The British Isles, Iceland, and Norway are the homelands of millions of people because the Gulf Stream tempers their



International

Each year thousands of vacationers come to Bermuda by boat and plane to enjoy the climate and the beautiful countryside. Many live in the white-roofed hotels we see here at Hamilton, the capital.

BERMUDA—THE VACATION ISLANDS

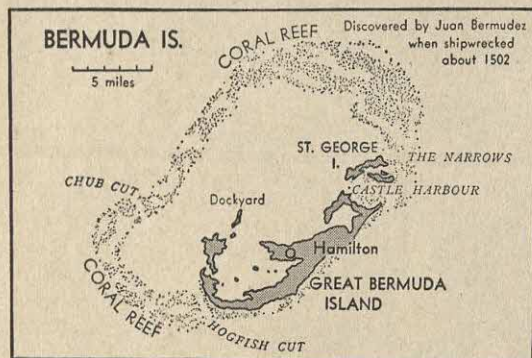
The early explorers found very few islands in the Atlantic. Let us find some of them on our map. The Azores, the Canaries, and the Cape Verde Islands fringe the continent of Africa. They are possessions of European countries. The Bahamas and the West Indies, as we have already learned, are near North America, but some of them belong to European nations. Now we should like to learn about a tiny group of coral islands close to America, which belong to England. These islands are the Bermudas.

Mr. Anderson suggests that we find the Bermudas on our map. How far are they from New York? from Halifax?

Mr. Anderson tells us that he visited the Bermudas last year. We can think of a hundred questions to ask him, but he laughs and says, "Suppose I just tell you about my vacation. I am sure your questions will be answered.

"The first people to live on these islands were unwilling visitors," Mr. Anderson tells us. "They were English people who were shipwrecked 300 years ago on the reefs which surround the 300 islands in this tiny group. They stayed in Bermuda almost a year. Later, other English people went there and established a settlement."





The Bermuda Islands are part of a coral reef. Notice that there are only a few entrances through the reef.

How do people live in Bermuda?

"The weather was bitterly cold in Halifax when we left there last February," says Mr. Anderson, "but in Bermuda the sun was shining, flowers were blooming, and the blue water sparkled along the white beaches. My cousins had planned a beach party for my first afternoon there, and after a swim, we lounged in the sun, had a picnic supper, and leisurely bicycled home. Everyone in Bermuda," explains Mr. Anderson, "rides a bicycle.

"The roads in Bermuda are like shining white ribbons on which are threaded villages and towns with houses of white-washed stone. Even the roofs are white. Nearly all the water used there — for drinking, washing, and all other purposes—is caught in tanks as it runs from the roofs during rainstorms and is carefully saved. There are no rivers, springs, or wells in Bermuda, so this method of obtaining water is necessary. Fortunately, Bermuda gets plenty of rain."

What are some of the important occupations and industries of Bermuda? There are about thirty thousand permanent inhabitants in Bermuda. Three-fifths of them are Negroes, and the rest are whites. "The cousin with whom I

was visiting in Bermuda is a government employee in Hamilton, the capital," Mr. Anderson goes on to say. "There are British air and naval bases in Bermuda, and many of the permanent residents work for these branches of the British government. There are also similar bases leased by the United States government, and some of the people of Bermuda have obtained employment at these bases.

"My cousin's son is an exporter of vegetables—Bermuda onions, tomatoes, celery, potatoes, and others—which are grown on truck farms and shipped by airplane or fast boats to markets in the large cities of the United States and Canada. He has also developed a business exporting lily and jasmine bulbs and cut flowers. The flowers, of course, have to be shipped by air express.

"One of my cousin's daughters is a secretary in a large hotel, at which many of the vacationers in Bermuda stay. Tourists are the source of most of the income of many people of Bermuda," Mr. Anderson tells us.

"I had a very enjoyable vacation: the weather is always pleasant, and the scenery on these little islands is enchanting. It was perhaps the most restful two weeks I have ever spent." And after hearing our friend's description we can understand why this is a favorite vacation spot for many people from the United States, Canada, and England.

After finishing his story of Bermuda Mr. Anderson promises to tell us soon the story of the steppingstone islands that led the Vikings to America.



Ewing Galloway

Much of Iceland looks like this—snow-patched mountains, rugged cliffs, rocky ravines, and rushing white-water rivers with many falls. Do you see any trees in this picture? How do you think crops would grow on this land? Might it be good for raising sheep?

FOLLOWING THE VIKING TRAIL

About six hundred years before the time of Columbus some tall, light-haired people ventured westward over the Atlantic Ocean from their homelands in northern Europe. Their boats were low and long, and usually had only one square sail and places for ten oarsmen, who either helped the wind or took the place of it. These adventurous people were Vikings. They were also called Northmen.

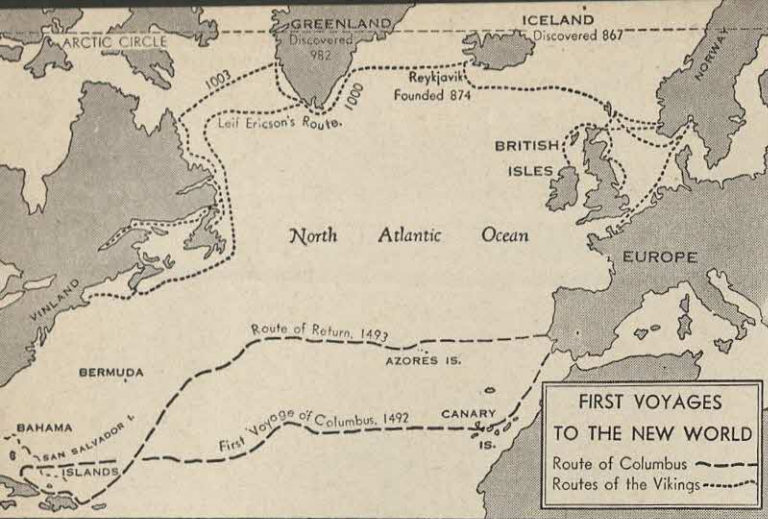
Iceland was one of the first new lands discovered and settled by these Vikings. For some 400 years it remained a free country. Later it was ruled first by Norway and then by Denmark. In 1944 Iceland again became independent.

Where is Iceland located? It lies about a third of the way from Europe to America, just below the Arctic Circle.

We think that surely this land must be very cold! Although the summers are cool, Mr. Anderson tells us that the winters are not so cold as those in New York City. This is one of the lands warmed by the Gulf Stream, he reminds us.

Our friend has been in Reykjavik (rā'kyā·vēk'), the capital of Iceland, several times. "On my last visit I was entertained by a business acquaintance, so when I returned home, I sent his son a miniature electric train. The boy was delighted, and wrote me several letters. I know you would like to read this boy's description of his homeland."

The letters are written in very good English, although, Mr. Anderson says, the native language of Iceland is called Icelandic. It is related to the language spoken in Norway. The boy wrote to



The adventurous Vikings sailed all over the North Atlantic Ocean, and even founded colonies in many distant places. Columbus' "discovery" of the New World came long after that of the Vikings.

thank his friend for the train. "As you already know, we have no railroads in Iceland, but I have set up the track and locomotive so that when my friends come to see me, they can learn how these things operate.

"Last month we visited my grandparents on the eastern coast," the letter continues. "When our boat docked my grandfather was waiting for us with ponies. We started off at once so that we would arrive at the farm before dark."

How do the people live? "My grandparents live in a cottage made of stones and sod, because there are no trees for lumber on our island. Of course, our home in the city is made of building stone and lumber brought from other countries."

Mr. Anderson shows us a photograph which was enclosed in the letter. It shows an elderly couple standing in the doorway of a neat sod cottage. Leading to the corner of the house were electric wires! Mr. Anderson tells us that he inquired about this and received the following reply.

"Electric current is generated at the falls in the river a few miles from the cottage. My grandparents—like almost

everyone else here — have a telephone and a radio, also. And they use electricity for heating.

"Hot water from boiling springs heats the homes of many people. Some of the older homes were built right over these springs. There are hundreds of hot springs in Iceland, fed by water from under the surface of the earth. This water is made very hot by the great heat in the volcanoes here. So these volcanoes may be thought of as our 'central heating system.'"

Mr. Anderson adds that Icelanders have learned to use the things that they have. So by using electricity and hot water, Icelanders do not have to buy expensive coal or oil from other countries.

"Near my grandfather's farm," the letter continues, "there are many boiling mud pools and geysers—first cousins of volcanoes—which are visited each year by tourists. These tourists sometimes stay at the farm. This year I went with one of these groups on some of their excursions. We rode through valleys so rocky and barren that even grass will not grow there. We forded rushing, icy streams and sometimes traced them back to the melting glaciers."

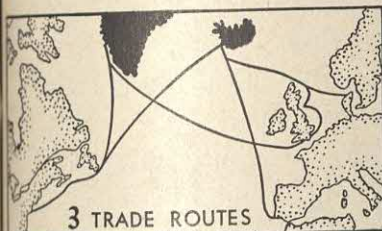
Covers more than three-fourths of the island, and is over a mile thick in some places. It never melts.

Glaciers

Iceberg:

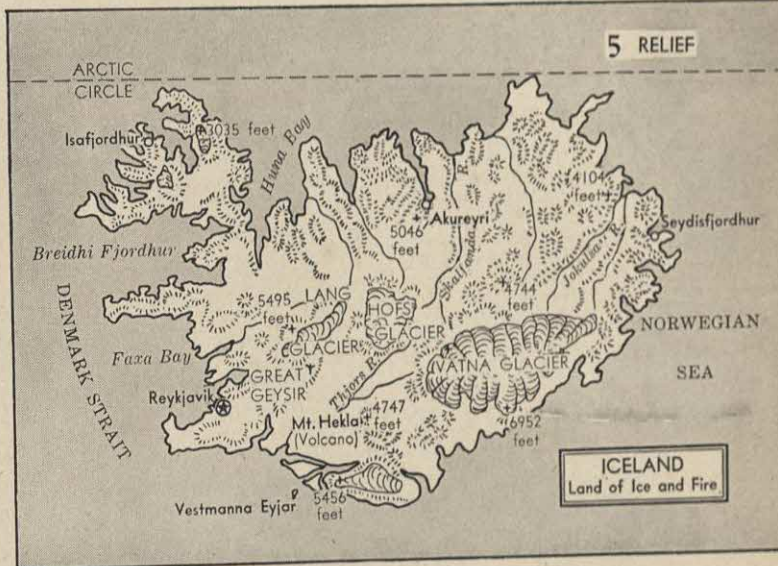
Davis Strait

2



3 TRADE ROUTES

5 RELIEF



THE STORY OF ICELAND AND GREENLAND TOLD BY MAPS AND DIAGRAMS

1. CROSS SECTION. Greenland is "the birthplace of icebergs," that float southward and menace ships. How tiny the ship appears! Compare this diagram with the maps we find on page 294.

ships. How tiny the ship appears! Compare this diagram with the one on page 10.

2. SIZE COMPARISON. Iceland is as large as Kentucky. Greenland is three times the size of Texas. 3. TRADE ROUTES. Situated between the Old and New World, Greenland and Iceland trade

with both. 4. PRODUCTS OF GREENLAND.

with both. 4. PRODUCTS OF GREENLAND. Compare Greenland's products to her imports and exports. 5. RELIEF OF ICELAND. Study

294. 6. PRODUCTS OF ICELAND. Iceland's

294. 6. PRODUCTS OF TERNARY
products are few.

GREENLAND

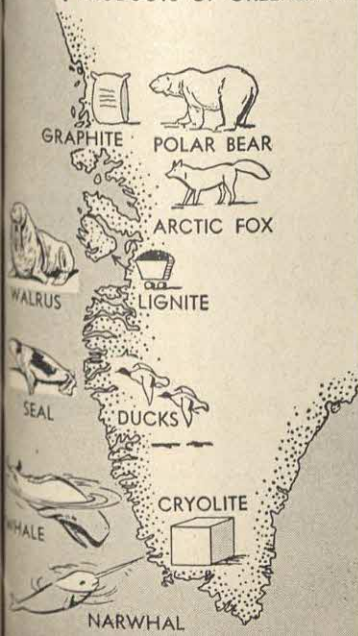
EXPORTS

Cryolite
Hides and furs
Whale and seal
blubber

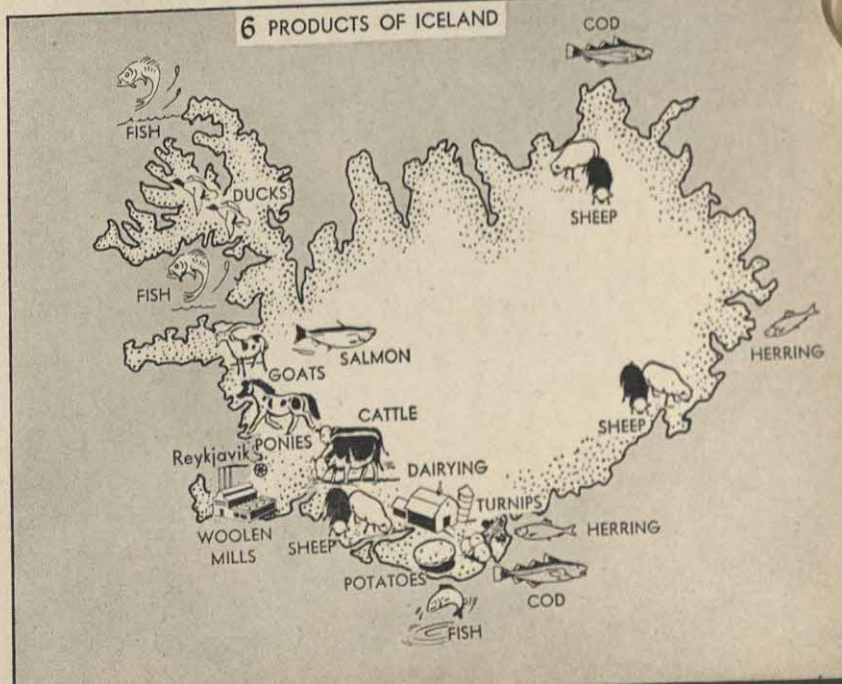
IMPORTS

Food
Textiles
Machinery
Iron

4 PRODUCTS OF GREENLAND



6 PRODUCTS OF ICELAND



How do the people travel? "Only ponies can travel in this part of the island. There are a few motor roads along the coast, but the land is so rough, that usually a trip to another part of the island takes less time by boat around the coast than by trying to cross the island. The people of Iceland travel by airplane if they are in a hurry and by boat if they are not. Goods are carried by boat."

What are some of the products of Iceland? "A great deal of wool is grown in Iceland. Most of it goes to England, Canada, and the United States. Some of it is woven into cloth in the mills at Reykjavik and then sold in those countries.

"My grandmother kept some of the wool from her sheep, and I helped her card and spin it, and begin her weaving. I also herded the sheep and helped with the haying, and with the other crops—oats, potatoes, and turnips.

"My uncle is a fisherman. He has often told me stories about his voyages. Most of the fish he catches are dried on the rocks along the shore. Sometimes the fish are sold for making fish oils. The dried fish and the fish oil are sold in the United States, Canada, England, and Denmark. Tallow, mutton, and hides are sold, too."

What is the story of the Vikings in Greenland? Most of what we know about

the later explorations of the Vikings comes from the *sagas*, or stories told by the people of Iceland. There are many of these sagas that tell of the early days of the Vikings in Greenland. One tells how a Viking was blown off his course by a mighty storm while on his way from Iceland to Norway. He landed on the island of Greenland. After a time a Viking named Eric the Red established the first colony on Greenland.

But after a while the Icelanders ceased their visits to the Greenland colonies. Those who remained in Greenland gradually adopted the ways of the Greenland Eskimos and married Eskimos. Today, all traces of the Viking colonies have disappeared.

What kind of land did the Vikings find? When they landed on the southern coast of Greenland they found a rocky, barren land. The few who ventured far inland must have returned with stories of the great sheet of ice and snow which covered the interior of the island. This icecap—nearly a mile thick—still covers three-quarters of Greenland. Here and there long tongues of ice moving slowly from the icecap have gouged out long, deep bays along the coast. These bays are called *fiords* (*fyôrdz*). There are similar fiords along the coasts of Iceland, Norway, Alaska, and southern Chile. Often these glaciers run down to the sea and break off in giant icebergs that float south and menace shipping.

The top of Greenland is a barren, flat expanse of snow and ice, almost without



This is a good example of a fiord. These deep inlets with towering cliffs above are often very beautiful, and sometimes make good harbors.



RELIEF

HEIGHT OF LAND

- OVER 10,000 FEET
- 5,000 TO 10,000
- 2,000 TO 5,000
- 1,000 TO 2,000
- 0 TO 1,000
- SEA LEVEL
- BELOW SEA LEVEL

DEPTH OF WATER

- 0 TO 500 FEET
- DEEPER THAN 500 FEET

NORTH AMERICA

SCALE IN MILES

0 100 200 300 400 500 1000



PRINCIPAL AIRWAYS OF OUR NORTHERN NEIGHBORS

Airplane transportation is as important to our northern neighbors as we have found it to be in the countries to our south. Several international airlines operate northward out of the United States, across Canada and Newfoundland to Europe, and across Canada and Alaska to Japan.

Canada's main air routes run east and west across the southern provinces, but many "feeder lines" bring swift transportation to points in the far north which used to be poorly served in summer by slow river boats and in winter by dog sleds.

Most of Greenland's few people are Eskimos. The sealskin tent is this family's summer home. What do their clothes show about summer in Greenland? Rocks, stones, or ice cover most of this land. Does this help you guess where the Eskimos get their food? What are they using for a cooking pot?

Gendreau



life of any kind. Here storms arise and blow out over the North Atlantic. For this reason the plateau atop the Greenland ice sheet is known as the "home of the blizzards." Weather stations located here send storm warnings by radio to Europe and America.

Who lives in Greenland today? There are less than 20,000 Eskimos living in Greenland now. Most of them live in tiny settlements near the coast in the southern half of the island. They hunt and fish for a living. From the cold waters they take seals and whales. Along the icy shores they trap Arctic foxes and catch eider ducks. They trade the whale oil, fish, sealskins, fox furs, and eider down for traps, guns and ammunition, and a few other things which they cannot make for themselves.

This island is a possession of Denmark, Mr. Anderson tells us, so the white inhabitants—there are about 500 of them—are Danish. Some are government officials; others are employees of the government trading company which operates trading posts in many of the settlements. The company also operates a coal mine on the western coast, which produces some brown coal, or *lignite*. This is not very good coal, but it is sold to whalers and to other vessels for fuel.

The trading company also controls Greenland's most valuable product—a mineral called *cryolite*. This mineral is used in making aluminum and glass. Great quantities are sold to the United States, Canada, and other countries. The only important source of cryolite in the world is Greenland.

YOUR ACTIVITY PROGRAM

Many people of the United States know very little about the Atlantic Ocean and the islands in it. These activities will help you to remember what you have learned about this part of the world.

Solving the Problems

A. Recognizing the Problems.

1. Write down in your notebook the problems presented in this unit.

2. Put an X before the most interesting problem of the section on the Atlantic Ocean, Bermuda, Iceland, and Greenland.

B. Gaining the Understandings.

1. Write the following sentences using the correct phrase to complete each one.

(1) The Gulf Stream runs through (northern Canada) (the Atlantic Ocean) (the Panama Canal).

(2) The North Equatorial Drift flows west from (the "bulge" of Africa) (Bermuda) (the Gulf of Mexico).

(3) The Gulf Stream is important because it (warms) (cools) the northern lands past which it flows.

(4) The Bermudas lie near (Africa) (Europe) (North America).

(5) Bermuda has no (wells) (bicycles) (sunshine).

(6) Bermuda belongs to (Argentina) (Germany) (Great Britain).

(7) Some of the things which are grown in Bermuda are flower bulbs and (onions) (winter wheat) (pine trees).

(8) Iceland was discovered by (the Romans) (the Vikings) (Simón Bolívar).

(9) Iceland has no (airplanes) (railroads) (ponies).

(10) The Icelanders get their electricity from (underground caves) (waterfalls) (coal).

(11) Iceland produces (wool) (automobiles) (spices).

(12) Greenland was settled by (Vikings) (Russians) (Englishmen).

(13) Greenland's name was (well chosen) (not well chosen).

(14) Greenland is topped by (an icecap) (a large cloud) (volcanoes).

(15) Greenland produces (airplanes) (cryolite) (bananas).

2. Be able to explain the following words:

Gulf Stream	Vikings
North Equatorial Drift	sagas
fiords	cryolite

Enriching the Understandings

1. On an outline map of the world draw the paths of the Gulf Stream and the other ocean currents discussed in this unit.

2. Add the stamps of these lands to your collection.

3. You learned in this unit that Bermuda is a favorite spot for vacation trips. Plan a vacation in Bermuda, using hotel, steamship, and airplane circulars.

4. See if you can buy a Bermuda onion. Sample it and compare it with other kinds of

onions. Is there a difference? Which is better?

5. Find out how perfume is manufactured and make a report on it in class. You might bring as many kinds of perfume as you can to illustrate your talk.

6. Iceland is an interesting and unusual country. Read one or more of the suggested books about Iceland and give a talk in class about some of the things which you have learned from them.

7. From reference books try to find out more about Greenland's icecap: how it was formed; what it is like; how it changes; and other interesting facts.

8. Add the flags of these lands to your collection.

9. See what you can find out about cryolite and why it is important.

10. See if you can find out anything about the food value of fish as compared with other foods. If you live in inland United States, you probably do not eat much fish. Do you think it would be good for you to eat more? Do we use fish for anything besides food?

Applying Your Knowledge

Write a paper about the future prospects of one of the lands studied in this unit. Perhaps these points will give you some ideas:

What resources have been found here?

Is it likely that more resources will be found?

What is needed for the development of the country?

How will the climate of the country affect its future?

Forming Opinions and Attitudes

By additional reading and class discussion perhaps you can arrive at sound opinions on the following subjects.

The United States has a military base on Bermuda. How do you think the people of the islands feel about this? Would it be better for us to try to buy the islands or to remove our base?

Greenland belongs to Denmark. Would it be an advantage to Greenland to be independent? Consider the number of people who live there and the kind of land found there.



Ewing Galloway

Canada's official symbol is the maple leaf, but a much surer reminder of Canada to many people is the red-coated "Mounty"—who always gets his man!

11. Following the Explorers

The fourth day out, as we approach Halifax, we remind Mr. Anderson that we did not know at first that he was a Canadian. We thought from his speech, his clothes, and his manners, that he was from the United States. Mr. Anderson tells us that many people make this same mistake. It is often difficult to tell the difference between people from Canada and the United States.

Most Canadians speak English, just as we do. They read the same books. They dress in the same kind of clothes, and eat the same kinds of food. The houses on one side of the border are much like the houses on the other side.

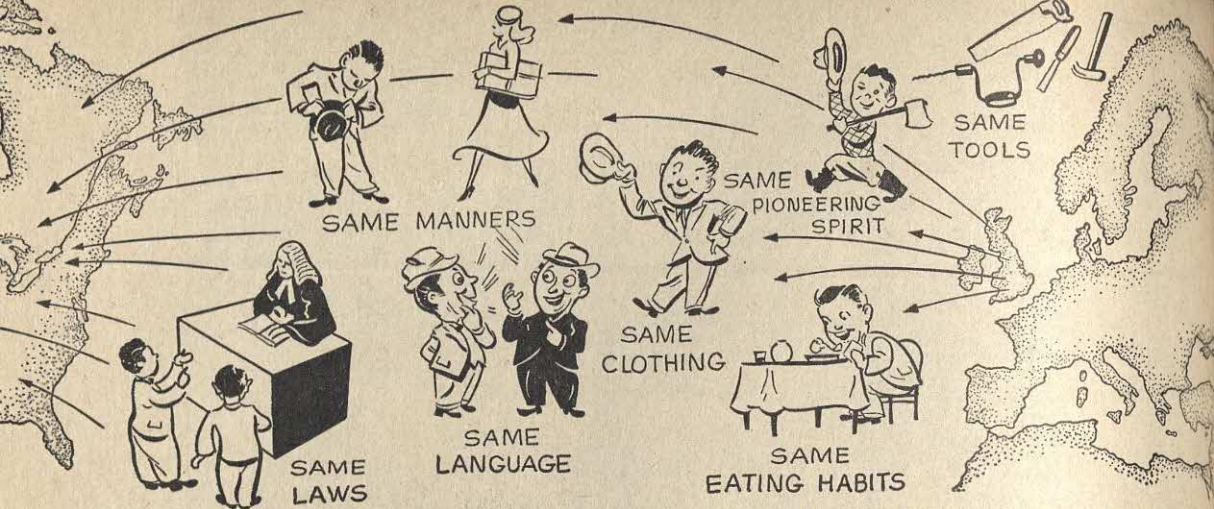
Children in Canada see the same movies that we do. In school they study the same subjects, except of course that they learn more about Canadian history, just as we learn more about the history of the

United States. When they ride in trains, airplanes, or automobiles, they are traveling as we usually travel.

Canadian farmers work their fields with almost exactly the same kind of machinery that our farmers use. Those who work in factories have the same kinds of jobs that are found in our factories.

Why are the people of Canada and the United States so much alike? Mr. Anderson tells us that there are three important reasons for these similarities.

Many of the people in the two neighboring countries are descendants of settlers from the British Isles. These immigrants brought to both countries the same language, the same love of freedom, and a sturdy, pioneering spirit. They also brought to each country the same manners and customs, the same



WHAT ENGLISH IMMIGRANTS BROUGHT TO BOTH CANADA AND THE UNITED STATES

tools, the same types of domestic animals, the same recipes for cooking, the same kind of clothes, and the same laws.

Of course not all the settlers were from the British Isles. Many immigrants came to each country from other countries of Europe. In both the United States and Canada there are many people whose ancestors came from Germany, France, Poland, the Netherlands, Scandinavia, Italy, Russia, and the Balkans. Both countries encouraged immigration in order to develop their land, and both offered people from all over the world a better life than they ever had known before. With a heritage so similar, it is not surprising that the people of the two countries are alike.

There is a second reason why the people of the two countries are similar. Many of their occupations are the same because the lands on each side of the border are much the same. Fishermen in Maine and Nova Scotia set out from the same kind of harbors and find the same good fishing along their Atlantic shores. Farmers in the Dakotas and across the border in Manitoba have almost the same kind of rolling prairie on which to raise their bountiful harvests of golden grain.

In the far west the lumberjacks in Washington and British Columbia find the same towering stands of timber on the rain-soaked slopes of their mountains.

There is still a third reason for the similarity between the people of the United States and Canada. We like each other, and each year millions of visitors cross the border between the two countries. Many tourists from the United States are attracted to Canada by the scenery and the sports that they may enjoy in Canada's natural playgrounds.

Hunters find deer, bear, moose, and other game in Canadian forests, and wild geese and ducks in the marshes. Many fishermen go to Canada's lakes and rivers to catch rainbow trout, bass, whitefish, salmon, pike, and pickerel. Winter vacationers go to Canada in the winter to ski and skate.

These tourists bring more wealth to Canada than is obtained from her gold mines. On the other hand, many Canadians travel through the United States, bringing wealth to our land. Our southern resorts are especially popular with our northern neighbors.

The people of the United States and Canada have no trouble visiting each

other's countries. Some countries do not welcome visitors, and they have soldiers guarding their borders. The border between the United States and Canada is nearly 4,000 miles long. It has been called the longest unguarded border in the world. This border does not have soldiers and forts on it because the United States and Canada have been friendly neighbors for nearly two hundred years.

As Mr. Anderson goes on with his story, he tells us that some of the people of Canada are very different from most of the people of the United States.

What is the main difference between the people of the United States and Canada? English is the official language of the United States. In Canada, both English and French are official languages. Canadian laws, money, and stamps, for instance, are printed in both English and French. When we visit certain parts of Canada, we shall find street signs, road markers, and newspapers in both English and French. The policeman on the street corner and the shopkeepers speak both languages. Perhaps a short review of early Canadian history will help us understand how this came about.

FRENCH AND ENGLISH RIVALRY FOR CANADA

What is the story of the early explorations in Canada? We all remember, from the study of our own country, that in 1492 Columbus first sailed across the Atlantic and reached the New World. Only five years later, another hardy sailor, John Cabot, reached the North American coast. He was a native of Italy who had made his home in England, and he was eager to do for England what Columbus had done for Spain.

King Henry VII of England granted Cabot permission to sail westward across the Atlantic Ocean to search for a northwest passage to India and for riches. He took with him his son Sebastian and seventeen other men. After a long voyage on their ship, the *Mathew*, it is thought that they finally reached Cape Breton Island. They believed they had surely reached eastern India or China. Upon their return to England they were highly honored and had many interesting stories to relate. They told of sailing across

places in the water some miles off the coast of the new land where the fish were so plentiful that their ship was blocked in its course.

John and Sebastian Cabot made several more voyages westward, but they never discovered the northwest passage, nor did they realize that they had discovered a new continent. However, they brought to Europe news which resulted in the development of the fishing industry and the fur trade in the New World. Every year, fishermen from western Europe visited the fishing grounds on the Newfoundland Banks and returned with their ships filled to capacity. Also before long other Europeans came to America and brought back shiploads of furs.

The English were disappointed that the Cabots did not succeed in finding gold, spices, silks, and other riches in the new country. After a time they abandoned their efforts to penetrate further into the land lying westward across the

Atlantic. For the next hundred years England made no further attempt to explore or to colonize the New World.

But the people of another European country began to dream of the riches that they might find in the far East. These people were the French, and before long, French explorers were on their way across the stormy North Atlantic to find a water route to China.

Who was the first French explorer of the New World? In 1534, the king of France commissioned Jacques Cartier (*zhâk kâr'tyâ'*) to find a water route to the Far East. Cartier reached the barren coast of Labrador. The New World must have seemed bleak and uninviting to him because he said, "there was not a cart-load of earth on the whole of it."

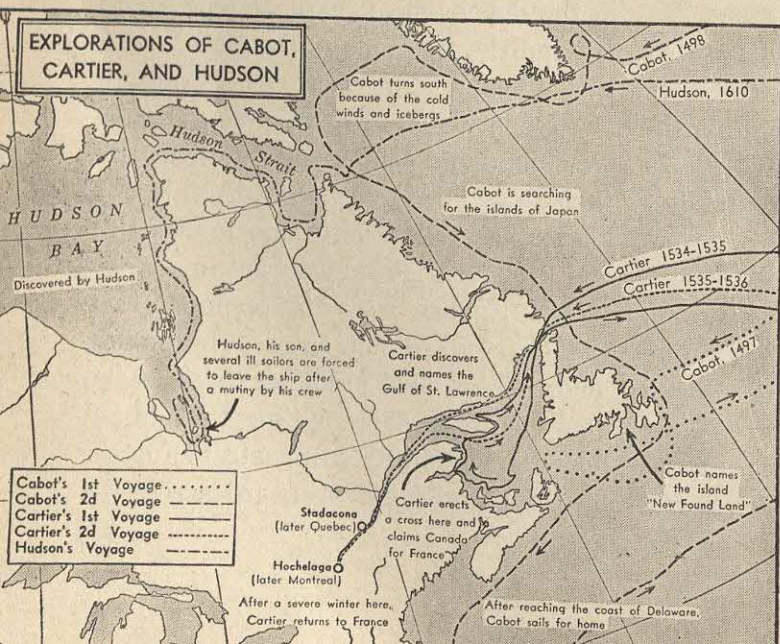
Cartier then sailed south into the Gulf of St. Lawrence. There he and his men saw green trees and lush meadows that made these shores worth claiming for their country. Landing on the Gaspé (*gäs'pâ'*) Peninsula, they erected a cross thirty feet high and placed on it a shield bearing the arms of France. Can you find this peninsula on the map?

By this time winter was near. The weather was so stormy that Cartier gave up his attempt to find a northwest passage. He returned to France, where people listened with interest and amazement to his stories of red men who lived in a land of great forests and fertile meadows.

Cartier had taken two Indians back to France with him. These Indians became the center of curious crowds wherever they went. The French people listened to their strange language, examined their clothing, and watched with awe their unusual ways of behaving.

Cartier's second voyage. The next year Cartier made another voyage across the Atlantic and this time anchored in a little bay on the northern shore of the Gulf of St. Lawrence. Since it was the feast day of St. Laurent, he named the bay after this saint. Gradually, the name came to be applied to all of the gulf and to the river which runs into it.

This time Cartier pushed his way far up the St. Lawrence River because this looked like the passage he was seeking. Finally, he stopped at an Indian settlement, where he was received with great



The search for a northwest passage led to the first explorations along the coast of Canada. The Cabots were stopped by the icebergs found in Davis Strait. Hudson sailed deep into Hudson Bay. Cartier went far up the St. Lawrence. They did not find a northwest passage, but they helped to open a new continent.

This painting of Cartier shows the land that he claimed for the French. They did not settle it until many years after his death.

The Bettman Archive

respect. There was only one entrance to the village—through a high log stockade which surrounded it. Above this was a balcony where the Indians kept heaps of stones with which to defend their homes against enemies. Fields of corn grew on the plains around the village. The homes of the natives were long houses, made of tree branches for supports, and skins, bark, and mud for covering. Four or five families lived in each house.

The Indians then guided Cartier and his men to the top of the hill, which towered above the village. The view from the summit was so impressive that Cartier named the hill Mont Real (môn rā·âl'), French for Mount Royal. The hill and the site of the Indian village are now part of the biggest city in Canada, Montreal (mōnt'rē·ôl'), which takes its name from Cartier's name for the hill.

Cartier claimed this land for the king of France also. Then he turned back to an Indian village near the present site of the city of Quebec. There he spent the winter. It was at this time that Canada may have acquired its name.

According to the story, an Indian chief waved his arms as if to include all the land that stretched far beyond the horizon and exclaimed "Kanata!" Cartier thought the chief meant that Kanata was the name of the entire country. Actually, it was only the name of a small Indian settlement near by. But thereafter Cartier always called the country on both sides of the St. Lawrence River Canada. He also named it New France.



What happened to the first French settlement in Canada? In 1541, Cartier made a third voyage to the New World. This time he wanted to establish a French colony. So besides sailors and soldiers, Cartier took farmers, as well as cows, goats, and pigs aboard his ships.

These French pioneers settled where Cartier had spent the winter on his second trip. The new French colony found the winter extremely cold. They had not been able to grow their first crops before the cold weather came, and almost all of them became sick with scurvy. The friendly Indians helped by giving the Frenchmen food. For the sick the Indians made a tea by boiling needles of the spruce tree in water.

Too many men died, however, so the plan for a colony in Canada was abandoned. For over sixty years the French made no more attempts to settle in the lands Cartier had claimed for his country.

Why did the French return to Canada? Frenchmen kept visiting the northern shores of the New World, but they came mainly to fish in the waters that lie off the continent. After a while many of these fishermen began trading tools and trinkets to the Indians in exchange for furs. Soon good-sized expeditions were coming to Canada just to trade with the Indians.

Who was Samuel de Champlain? Not until 1603 did any other Frenchmen come to explore the country of the St. Lawrence. This time it was Samuel de Champlain who sailed for the new land. He gradually gained the friendship of the Indians and taught them to help him in his explorations. They would point out to Champlain the locations of trails, lakes, rivers, and mountains by laying pebbles and twigs on pieces of birch bark.

Champlain then made maps to indicate the location of the physical features of the country along the St. Lawrence, and of Indian villages as well. He also took note of every kind of bird, flower, and tree. Consequently, when he returned to France, he was able to give a very satisfactory account of his trip.

Each settlement shown here has thrived to the present time. Except for the English fishing village at St. John's, the French were the first to settle this region.



Where was the first permanent French colony in the New World? When Champlain returned to France, he brought a shipload of furs. The king and the merchants were pleased. Other Frenchmen, however, were more excited by Champlain's description of the fertile land he had seen. Some of them decided to go with Champlain to the New World and make new homes.

Our guide tells us that in 1604 the ship bringing Champlain and the colonists from France passed right by the site of Halifax, our destination on our present trip. Champlain helped the colonists start their homes on a little island on the west side of the Bay of Fundy. After a very hard winter during which many men died, the colony was moved across the bay to the west side of the peninsula now known as Nova Scotia. This new colony was named *Port Royal*. It was the first permanent settlement in the land of our northern neighbors, and it was situated near the present city of Annapolis Royal.

Where was the first French colony on the St. Lawrence founded? In the summer of 1608 a French ship sailed up the St. Lawrence River. Pointing out the way for the captain of the ship was Samuel de Champlain, the Frenchman who knew more about this territory than any other white man living. And the twenty-eight Frenchmen who had come to the New World to live were thinking as they looked over the rail that Champlain's stories had been true. This land gave a man a chance to start a new life with plenty of room to move around in.

The French ship sailed up the St. Lawrence River to a place where a rocky cape rose abruptly 333 feet out of the

Long before white men came to the New World there were many bitter wars between different Indian tribes. After Champlain used firearms to help the Algonquins defeat the Iroquois in one war, the Iroquois became the eternal enemies of the French. This picture shows the Iroquois taking captives after burning a French farmhouse. The early pioneers had to be courageous!

Courtesy National Life Insurance Company



water. On this rock Champlain decided to establish his colony. He called the settlement Kebec, or *Quebec*, the Indian name for "narrowing of the river." At this place the St. Lawrence River is less than a mile wide.

Immediately Champlain and his men set to work in earnest to clear away trees and build houses. Here, too, the first winter was a hard one. Out of the twenty-eight colonists only eight survived. And it was because of the aid given them by the friendly Algonquin (ăġ-gōng'kĭn) Indians that these eight did not perish, but lived to see Quebec grow into a village.

So we see that about the time the English were settling at Jamestown and Plymouth, the French were starting their colonization of what is now Canada. Gradually the French settlements grew, both in size and in number. Hundreds of shiploads of settlers came to the new country, bringing with them the customs, habits, laws, and way of life of the people of France. With governors like Cham-

plain ruling them, French priests, farmers, fur traders, and fishermen tried to make this land as much like their native France as they could.

How did the French Catholic priests help make New France like Old France? Most of the people of Old France were devout Catholics. So when the early settlers came to America the Catholic priests came too. Every settlement had its Catholic church and school.

The priests did more than simply build churches in the settlements. Many came to America as missionaries to the Indians. They lived with the Indians, treated the sick, and taught them the Catholic faith.

Does this early history of Canada help you to understand why some of the present-day Canadians speak a different language and have customs that are different from our own? Now let us see if we can discover how the English gained control of Canada, even though the French were the first to settle there.

Why did England again become interested in Canada? In 1610, about the time the French were setting up their colonies in Canada, Henry Hudson, an English navigator, sailed to the New World in search of a northwest passage. His ship, the *Discovery*, sailed far north of the crossings made by earlier explorers. Today we can follow part of his route by finding on our map the bay and the strait named in his honor.

Since neither Hudson Strait nor Hudson Bay was the passage he was looking for, Hudson gave the order to sail on. But the men were discouraged. Food was scarce. Many of the crew were sick with scurvy. They did not have clothes warm enough for such bitterly cold weather. Almost all of the crew wanted to return to England. A mutiny broke out against the determined captain. Hudson and his son were cast adrift in a small boat with the sick and the loyal members of the crew. This was the last anybody ever heard of Hudson. The leaders in the mutiny were killed by Indians later, but seven men survived the trip to England.

What was the Hudson's Bay Company? For many years after Hudson's time the English showed little interest in the far northern lands Hudson had discovered. Two Frenchmen made the



English realize the value of the Hudson Bay region.

These New World Frenchmen were Radisson (rà'dě'sôn') and Groseilliers (grō'zě'yā'). While young men, they lived and worked with the Indians around the Great Lakes.

Gradually these two Frenchmen learned how to get along with the natives and started to trade with them for furs. The Indians brought to them greater and greater supplies of furs from the interior. When the governor of New France learned of their great success in fur trading, he demanded two-thirds of their furs for the government of New France.

Radisson and Groseilliers were angry at having to give up their furs. They went to England, where they met Prince Rupert, who was a first cousin of King Charles II. The Prince helped them in persuading the King to furnish them with two ships. After a winter of hard work in Canada, they returned to England, laden with furs. King Charles was



Every spring the French fur traders loaded their canoes with the winter's catch of pelts and sped over the lakes and rivers to Montreal.

If is surprising that more of North America did not become French when we see how much land the French once claimed. Most of the east coast of the continent and the land around Hudson Bay was claimed by the British.

so surprised and happy that he created the Hudson's Bay Company and granted to it a charter which gave the company very great trading privileges, as well as the right to all land in Canada that drained into Hudson Bay. This land was called *Rupert's Land*.

We can imagine how the French felt when they heard that the English king was giving away land which they considered as theirs. They objected strenuously to the Hudson's Bay Company's claims to the land and to the fur-trading privileges given the Company by the English king. So, whenever possible, the French interfered with the efforts of the Hudson's Bay Company and tried repeatedly to drive the English off Canadian soil altogether.

What was the result of the rivalry between the English and the French? But the English refused to be driven from Canada. Instead, as time went on, they, too, sent colonists to this new land. Both nations began to expand in the New World. English settlers began to pour into Canada and into the English colonies to the south. The French began to explore and build forts in the region south of the Great Lakes in the valleys of the Ohio and Mississippi rivers. Do you remember that one of the early missions of George Washington was to cross the mountains and warn the French commander at one of these forts to withdraw from those lands, saying that they belonged to England?



It wasn't long before the two nations were fighting, not only in America but in Europe as well. In America this conflict was known as the *French and Indian War*.

For several years the battles and skirmishes continued. Finally the British captured Quebec and Montreal. In 1763, France signed a treaty surrendering to England all of Canada and the land lying east of the Mississippi River which they had previously claimed.

But even though England had control of Canada, she could not change the French who already lived there. They would not become Englishmen. Instead, they became French Canadians. They continued to speak French. They continued to live as they had always lived, following the traditions, customs, and religion of their native land.

So while many of the people of Canada and the United States have the same language and customs, there is a large group of French Canadians that are different from most of the inhabitants of the United States.

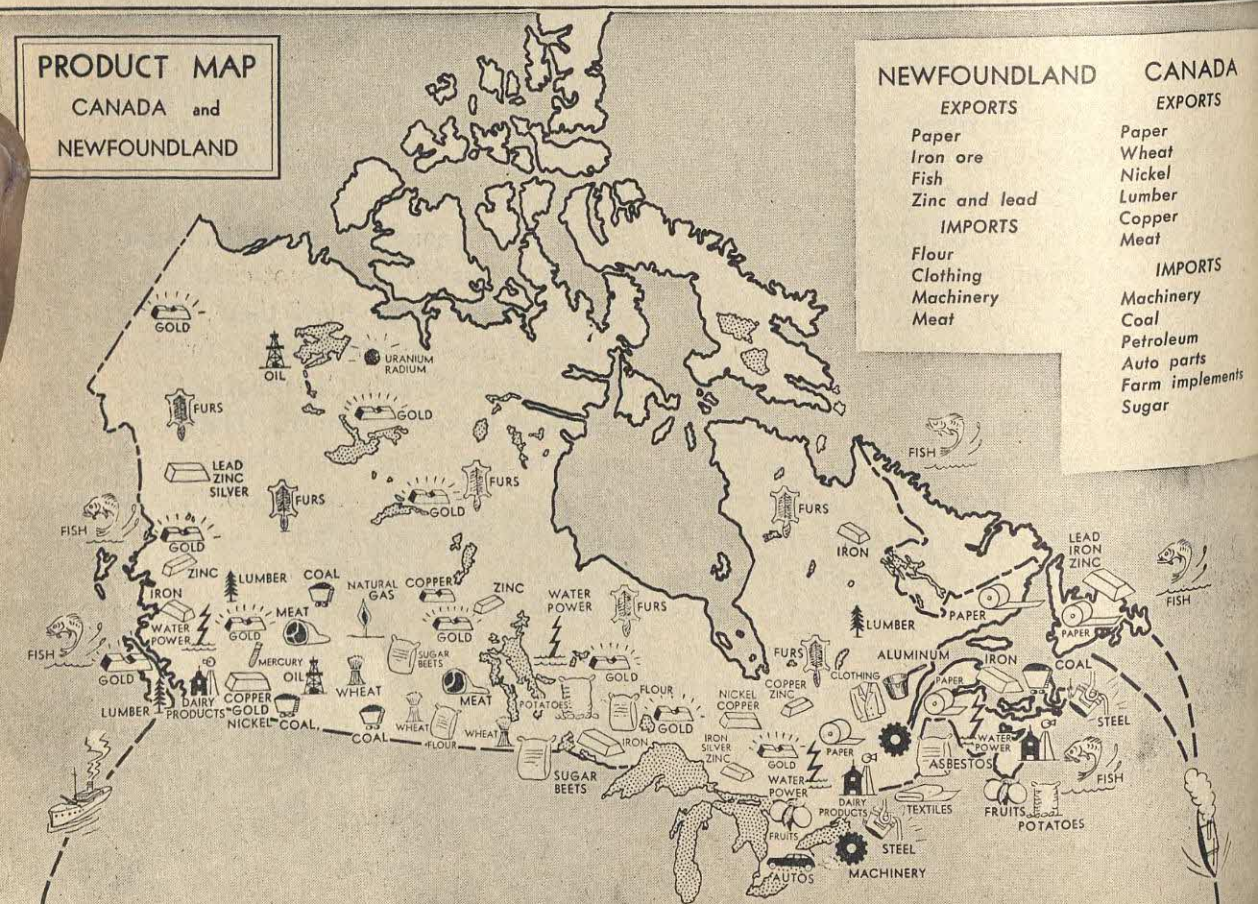
CANADA AND NEWFOUNDLAND

SCALE OF MILES
0 300 500



PRODUCT MAP

CANADA and
NEWFOUNDLAND



NEWFOUNDLAND

EXPORTS

Paper
Iron ore
Fish
Zinc and lead

IMPORTS

Flour
Clothing
Machinery
Meat

CANADA

EXPORTS

Paper
Wheat
Nickel
Lumber
Copper
Meat

IMPORTS

Machinery
Coal
Petroleum
Auto parts
Farm implements
Sugar

CANADA ON THE MAP

"You might be interested," says Mr. Anderson, "in comparing the physical features of the United States and Canada. You will be surprised by the number of ways in which the two countries are alike and also by the ways in which they differ."

How do the United States and Canada compare in size? A glance at our comparison map shows us that Canada is larger than the United States. It is the largest country in the Western Hemisphere. There are only two countries in the world that are larger than Canada—the Soviet Union and China.

The mainland of Canada stretches about 3,000 miles from the Atlantic to the Pacific and extends 2,200 miles north from the border of the United States to the Arctic Ocean. North of the mainland are many large and small islands belonging to Canada. The northern tip of the northernmost island is only 475 miles from the North Pole.

How does the population of Canada compare with that of the United States? The population of Canada is about twelve million—a small number for so huge a country. This is only one-twelfth the number of people in the United States. It is less than the population of the state of New York.

Most of the people of Canada live in a narrow strip of territory along the United States border. The largest cities are within this southern region. On the

other hand the northern part of Canada is a sparsely settled wilderness.

About half of Canada's people are of British origin. Almost a third are of French. In spite of this, the Canadians are united in loyalty and, like us, are very proud of their country.

How does the climate of Canada compare with that of the United States? It is easy to understand why the climate of southern Canada is so much like the climate of northern United States. The lands lie side by side. The only real difference is that our northern states receive a little more rainfall than do the southern provinces of Canada.

But away from the border the climates differ greatly. And this, too, is easy to understand. People in our southern states have a warm climate that is not found anywhere in Canada. And the Eskimos of northern Canada live in a colder climate than can be found anywhere in the United States.

How do the land features of Canada compare with those of the United States? On our relief maps we can see that many

SIZE COMPARISON



It is hard to see whether Canada or the United States is larger, because Canada has so much water. But it has more land, too.



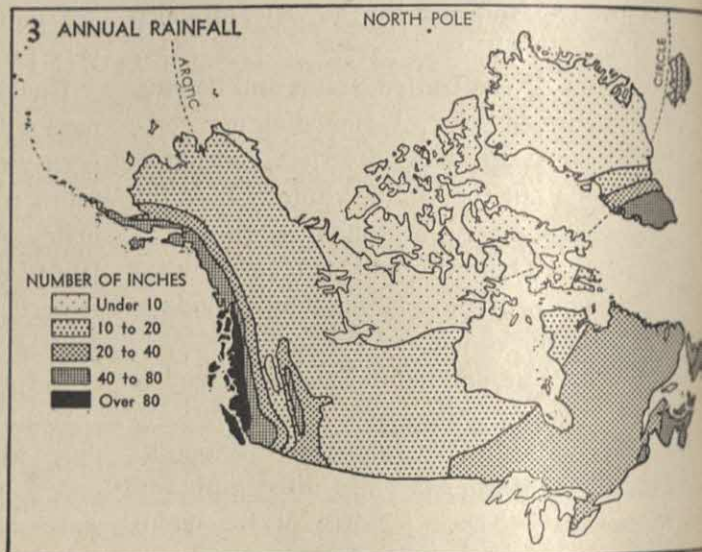
THE STORY OF OUR NORTHERN NEIGHBORS IN MAPS AND DIAGRAMS

1. CROSS SECTION. This is the "face"—or profile—of Canada at 49° north latitude. Find this line on the color-layer relief map in this book. Another profile of Canada is on page 359.



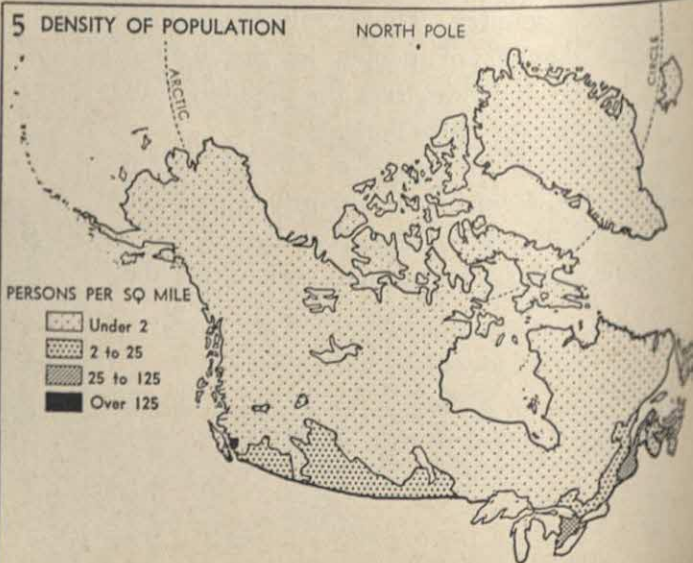
2. LOCATION. Notice the important position Canada holds and its extent.

4. LAND REGIONS. Note how the regions extend from Mexico through Canada—except the Canadian Shield.



3. ANNUAL RAINFALL. The heaviest rainfall in Canada is at the far west and the far east. What do you think is the reason for this? While black stands for "over 80 inches" of rain, at some places 120 inches fall each year.

5. DENSITY OF POPULATION. This map tells us that all of the area north of the U. S.—Canada line is sparsely populated. Notice that it is heaviest along the boundary.



of the land features of Canada are the same as those found in the United States. For instance, the low eastern highlands, the great central plains, the high, rugged Rocky Mountains, and the warm, fertile Pacific Coast regions of the United States all extend northward into Canada. The Great Lakes are shared by both countries, and the rolling farm lands about them stretch for miles on either side of the dividing line on the map.

But some parts of Canada are not at all similar to any regions in the United States. Notice that Canada is almost divided by the large inland sea called Hudson Bay. The land surrounding Hudson Bay is known as the *Canadian Shield*, which curves in a U shape from the Atlantic Ocean west to Lake of the Woods and north toward Canada's Arctic islands.

This area is rolling, forest-covered land. It is not very fertile, and it is much too rocky for farming. This is because most of the soil was scraped away by glaciers which moved south from the Arctic regions during the Ice Age. Mr. Anderson says that the term *shield* has now come to mean any area where the surface has been scraped away until the old rock base has been exposed. There is no great shield area in the United States.

What natural resources are most important in the United States and Canada? In the United States our most important natural resource is our land. This

is also true in Canada. Today almost one-third of her people live on farms. The products of these farms feed not only Canada's population but people all over the world. In recent years, for instance, Canada shipped an average of nearly 1,000,000 bushels of wheat or flour to other lands every day.

The mineral resources of both countries are also important. In Canada much of the land which was long considered useless has now been found to be rich in minerals. These include nickel, gold, iron, silver, copper, zinc, platinum, lead, asbestos, coal, and pitchblende. There are great quantities of pitchblende, which has become especially valuable lately as a source of radium and uranium. We have almost none of this mineral in the United States. We import much of what we use from Canada.

Canada's forest products rank in importance next to the products of her farms and mines. In the United States we have already cut down most of the forests that once covered a great part of our land. But one-third of Canada is

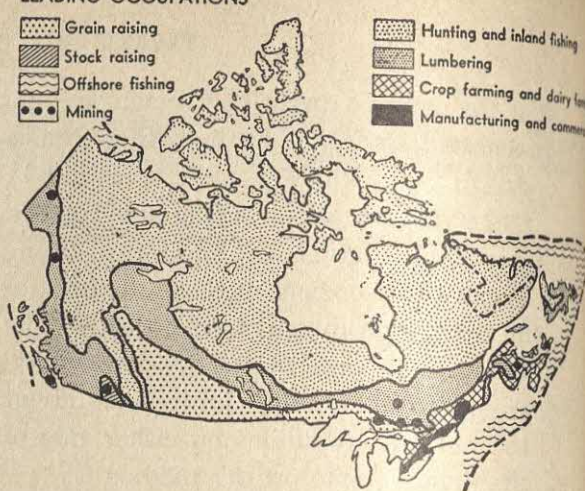


During the Ice Age the great glaciers pressed southward, covering most of Canada, scraping off the topsoil down to bare rock, scooping out lakes, and making new rivers.

VEGETATION



LEADING OCCUPATIONS



Compare these two maps. On what kind of land is farming the chief occupation? Where is the lumbering done? What is the chief occupation in the tundra area? How can you account for the location of manufacturing centers? What are some occupations that seem to have nothing to do with vegetation? What do these two maps tell us about how geography affects people?

still covered with usable forest. We realize how valuable these forests are when Mr. Anderson tells us that three out of every four newspaper pages printed in the United States are made of Canadian wood pulp or Canadian newsprint.

Canada has one other natural resource which has been very important to the development of the country. In the United States our industries get most of their power to operate their motors or engines from coal or oil. Canada does not have very much coal of good quality, and she produces very little oil. So Canada has turned to her fast rivers for power. These rushing waters turn great dynamos which produce electricity cheaply.

Hydroelectric power, as this kind of power is called, has created many industries in parts of Canada where coal is scarce. The great advantage of hydroelectric power is that it cannot be used up like a coal field, which someday may have had every bit of coal dug out of it.

Canada's rivers are important in another way. They make excellent water

highways. "Water transportation is much cheaper than land transportation," Mr. Anderson reminds us. "Canada has made much use of her rivers and lakes in carrying many of her heavier and bulkier products to markets. Ores, grain, livestock, lumber, and wood pulp are carried by boat to Canada's manufacturing centers."

Is Canada an independent nation like the United States? In a few hours now we shall be catching our first glimpse of Canada, and after that we shall learn more about how the people of Canada live today, more about their history, and more about their government.

In the meantime we ask Mr. Anderson if he can tell us a little about Canada's government. We know from its early history that it was once a British colony. We know from reading the newspapers that it is no longer a British colony, but that it still has close ties with England.

Mr. Anderson tells us that the easiest way to understand Canada's relations with England is to think of England as the "mother country."

"For many years adventurous Englishmen sailed away from the British Isles to start small colonies in distant lands. I like to think of these colonies as children of 'Mother England.' As time went on these colonies gradually became able to take care of themselves, just as children grow up into men and women able to take care of themselves. Some of the colonies withdrew completely from the family of the 'mother country.' The thirteen colonies of your own country withdrew when they were still very young. Others preferred to stay in the family. Canada was one of these.

"So today, while Canada is still a

member of England's family, England no longer rules Canada. Canada is an independent nation. But you must remember that there are strong ties or feelings between a mother and her children. In the same way there are strong ties between England and Canada. Much of Canada's trade is with England. When England went to war with Germany in 1939, Canada almost immediately declared war on Germany, even though she would not have had to do so.

"Just think of Canada as a grown-up member of England's family, and you will always understand the relationship between the two countries."

YOUR ACTIVITY PROGRAM

In this unit we have learned some things about our closest northern neighbor, Canada. You may be particularly interested in this unit because some day you may be able to visit Canada—especially if you live in the northern part of the United States.

Solving the Problems

A. *Recognizing the Problems*

1. Write the problems which are presented in this unit in your notebook. How many are there?
2. How many of the problems are concerned with similarities or differences between the United States and Canada? Put an X in front of them.

B. *Gaining the Understandings*

1. Some of the following statements are true, and some of them are false. Write the numbers 1 to 20 on a piece of paper and put a T after the numbers of the true statements and an F after the numbers of the statements which are false.

- (1) All Canadian people are just like people from the United States.
- (2) All of the people of Canada are de-

scended from immigrants from the British Isles.

(3) The northern part of the United States and the southern part of Canada are much alike.

(4) Canada has two official languages.

(5) John Cabot was an Italian.

(6) The Cabots did not find gold and spices in America.

(7) Cartier was an Englishman.

(8) The first permanent French colony in Canada was founded by Cartier.

(9) Both the French and English were interested in the fur trade.

(10) Champlain's colony at Port Royal lasted only one winter.

(11) The first permanent settlement on the St. Lawrence was Montreal.

(12) Large bodies of water in the New World are named after Henry Hudson.

(13) The English fought on the side of the French in the French and Indian War.

(14) The Canadian French kept their language and customs even after England gained control of their country.

(15) Canada is just a little smaller than the United States.

(16) The Canadian Shield was used by the French as a protection against Indian arrows.

(17) Canada's population is concentrated around Hudson Bay.

(18) Canada exports wood pulp.

(19) Water power is not important in Canada.

(20) The government of England rules Canada.

2. Look at the list of problems you wrote in your notebook, and see if you can write a brief answer to each of them. Be prepared to discuss these answers in class.

Enriching the Understandings

Do as many of these activities as you have time for. Choose the ones which you find most interesting.

1. Read some of the books about Canada which are listed in the bibliography. Decide which part of Canada you will be most interested in visiting.

2. Begin looking for Canadian stamps and coins. Try to find stamps with pictures of Canadian scenery and resources.

3. There are many agencies through which you or your teacher can obtain addresses of Canadian boys and girls. If you have time, write to one in each province, and ask each correspondent to tell you as much as he can about his part of the country.

4. Add the flag of Canada to your collection.

5. Write to railroads and hotels for travel folders about Canada and decide where you would like to spend a vacation. Then plan your trip—the places you want to see, the clothes you will take, the activities you will take part in, etc.

6. Find pictures of the animals, fish, trees, etc., which are found in Canada, and make a frieze of them for the classroom.

7. Trace the voyages of Cartier, Champlain, and Hudson on an outline map of North America. You can find information for the map by looking in various reference books.

8. Mark a sheet of paper into three columns headed "French," "English," and "Indian." Then look at a large map of Canada and list all

the names you can find under the heading you think is right. Which has the most names?

9. Pretend you are a colonist coming to Canada with Champlain. Make a list of the things you would bring to the New World. Then compare your list with those of others in the class, and discuss any differences you find.

10. Dramatize the story of Henry Hudson.

11. Make a list of the likenesses and a list of the differences between the United States and Canada which are found in this unit. Which is the longer list? Can you think of any more likenesses or differences?

12. Find out from reference books about the Ice Age and its great glaciers. Make a class report on how the glaciers affected the land surface of Canada and northern United States.

13. See if you can find out from reference books or your science teacher how electricity is generated by water power. Make a report in class, using diagrams on the board. Be sure to explain as clearly as possible.

Applying Your Knowledge

Write a short paper telling why Canada and the United States should be good neighbors. Discuss backgrounds, products, geography, and anything else you feel should be included.

Forming Opinions and Attitudes

Think carefully about the following statements and then form opinions about them. Discuss your opinions in class.

Henry Hudson's sailors should not be blamed for starting a mutiny so that they could return to their homes in England.

The Indians were unwise to give so much help to the French.

The French deserved to keep Canada because they colonized it first.

A country which is like our own in many ways is less interesting than one which is very different.

We should be able to get along better with people like ourselves than we can with people who are very different from us.

Canada and the United States should unite to form a single nation.

Canadians have as much reason to be proud of their country as we have of ours.



Paul's Photos

For years the people of Newfoundland, Labrador, and the Maritime Provinces have depended upon the sea for food and livelihood. Other resources are being tapped, but the sea still means much to villages like this one, set among Newfoundland's rocky hills.

12. Lands That Face the Sea

When John Cabot first sighted land on his westward voyage from England in 1497, he named it "New Found Land." This island later became England's first colony.

As this book goes to press, the people of the island are trying to decide whether Newfoundland (nū'fūnd·lānd') and Labrador shall form a colony of Great Britain, an independent nation in the British Empire, or a province of the Dominion of Canada.

The dory teetered on top of a wave, then pitched rapidly into a deep hollow. The fog was now so thick that the young oarsman could barely see his old companion bailing out the water with the wooden bucket.

Again the dory rocked sickeningly. Cold spray broke over the heads of the two fishermen. Their teeth chattered as

they thought of themselves lost and drifting in the milky light.

Suddenly a foghorn sounded so close to them that the fishermen froze for a moment. Then the young man strained at his oars with all his might. But at that instant a huge wave struck the dory. It whirled around and almost capsized. The old man threw his weight against the raised side of the little boat. Slowly it righted itself. Both fishermen shivered as they heard the long, passing rush of the ocean liner that had almost run them down.

About two hours later a warm wind blew up, and the fog melted away. Soon the fishermen could see the two masts of their schooner silhouetted against the northeast horizon. With rhythmic strokes they pulled toward safety.

NEWFOUNDLAND—ISLAND OF FISHERMEN

Schooners and dories. Only that morning their schooner with eight dories had sailed out from one of the many harbors along Newfoundland's coast. All during the morning the fishermen had been busy preparing their fishing lines. Each one was almost half a mile long.

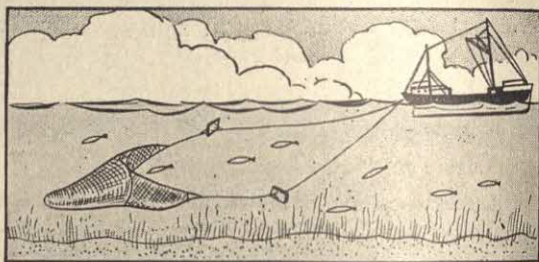
Once the schooner had reached the fishing banks, the dories, each with two fishermen aboard, had been lowered into the water. The fishermen tied one end of their fishing line to a float and rowed off, paying out the line as they went. During the afternoon the fishermen had rowed back and forth along their line, taking off fish and rebaiting hooks. It had been late afternoon when the fog swept down, cutting them off from the schooner.

Now they were back on board, and scarcely a word was said about their narrow escape. It was all part of the day's work, and besides, there was still more work to be done. The fish that had been caught had to be cleaned and salted and packed away.

"This method of fishing that I've been telling you about," Mr. Anderson says, "is gradually being replaced by another method known as *trawling*."

Trawlers. Trawling is a process of scooping fish out of the sea. One way

this is done is by means of huge nets whose "mouths" are fixed to stay open. These nets are lowered into the water and then dragged behind Diesel-powered boats. After a while the nets are raised, and the fish are emptied into the boat. These mechanical trawlers are doing for the fishing industry what farm machinery has done for agriculture.

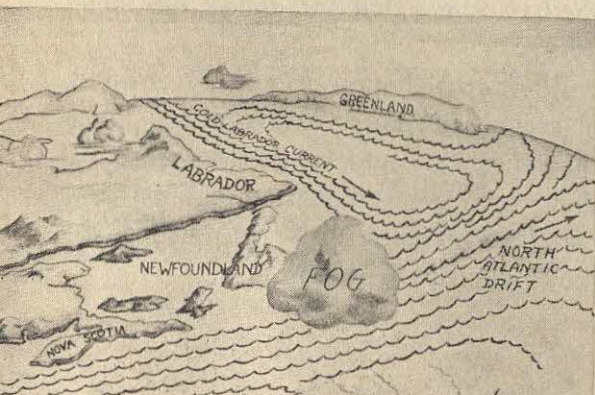


A Diesel-powered trawler in action.

Where do Newfoundlanders do their fishing? Mr. Anderson asks us to look again at our maps. "Can you locate the Grand Bank southeast of Newfoundland? It is greater in size than the state of Maine, and it is the largest of all the banks in the region. It might help you in your search if I tell you that a bank is a tablelike elevation of the ocean floor whose top is only a few hundred feet below the surface of the water."

The sun's rays penetrate these shallow waters to the top of the banks. The light causes little plants and sea animals to grow on the banks. These are foods that attract fish and make the waters around Newfoundland one of the best fishing areas in the world.

Fog is formed off Newfoundland when warm moist winds blowing from the Gulf Stream are rapidly chilled by cold winds blowing from the Labrador Current.





This map shows that the Grand Bank is about the same size as Newfoundland. The cross section below the map shows how shallow is the water of the Grand Bank.

of patrolling the seas. Now it is also an important base for our Coast Guard. Coast Guard cutters from Argentia have rescued hundreds of persons from ships and planes in distress on the stormy North Atlantic.

Newfoundland is also the *terminus* of many transatlantic cables, and it has an important wireless station.

What are transoceanic cables? Over a hundred years ago Samuel Morse invented the telegraph, and soon messages were speeding swiftly over telegraph wires to every city in the land. Scientists then began to wonder if messages could also be sent between Europe and America over wires stretched along the ocean floor. An American businessman, Cyrus Field, organized a group of Americans and Europeans to lay a transoceanic cable.

The cable consisted of a large, rope-like bundle of copper wires surrounded by a heavy protective cover. The first cable was laid from Newfoundland to Ireland, the shortest distance between America and Europe. Today there are many cables between Europe and North America, and most of them come to shore at Newfoundland.

Where was the first transoceanic wireless tested? In December of 1901 the brilliant young Italian inventor, Marconi, sat nervously at a wireless receiver near St. John's, Newfoundland. He had proved the success of wireless communication by sending and receiving messages up to a distance of 200 miles. But Eng-

How has Newfoundland's location made it important to the Old and New Worlds? The shortest route between New York and London runs just south of Newfoundland. Ships follow this traffic lane on the sea and airplanes follow it in the air.

At times ships have found that Newfoundland is a convenient stopping place for repairs and fuels. Later, all planes making a North Atlantic crossing stopped here for gasoline. Today we have many planes that can fly nonstop directly from New York to London. But the airfield at Gander, Newfoundland is still a valuable fueling point for planes with limited range and for flights that need extra gasoline because of storms or headwinds.

Newfoundland is also a center for rescue operations in the North Atlantic. Before we entered World War II, we leased a big base for our Navy at Argentia on Newfoundland. All during the war this base was of great value in the work

land was 2,000 miles away. Could his instrument send that far? He leaned forward, listening intently, as he heard some faint signals. There was no doubt about it! The signals were from the station in England! .

Marconi selected Newfoundland as the terminal point for his experiment for the same reason that the first transatlantic cable was laid from there—Newfoundland's nearness to Europe. Today, wireless messages from Europe are picked up at Newfoundland and then sent on to almost every part of North America. This is known as *relaying*.

What is Newfoundland like today? If our boat were going to Newfoundland, St. John's would be our next stop. After passing through a narrow channel between two peaks, we would enter a fine land-enclosed harbor in which many different kinds of ships rested.

St. John's—the island's capital—is a city of over 40,000 people. It is the center of commerce for both Newfoundland and Labrador. Several foundries, lumber mills, tanneries, breweries, and small factories are located in the city.

Inland from St. John's and the rocky coastal region, we would see why the interior is less thickly populated. It is rough and even more rocky. Many thousands of years ago the glaciers moved southward over Newfoundland, scraping off the topsoil, tumbling stones over the whole area, and leaving many hollows which later filled up and became lakes. It is easy to understand why farming is difficult in such a land.

What other resources enable the people to make a living? In recent years the lumbering industry has been provid-

ing work and wealth for an increasing number of Newfoundland's inhabitants. Lumberjacks and millworkers have taken their places alongside the fishermen as key workers of the island. Many of the trees that are felled are made into pulp and paper which is exported to America and Europe.

One day near the close of the last century, an Englishman visiting Newfoundland saw some unusual stones in the bottoms of several dories anchored in the harbor of St. John's. The fishermen had put these stones in their dories for *ballast*. The clever Englishman, suspecting that the stones contained a mineral, had them tested. It was discovered that at least half the weight of the stones consisted of iron.

Today Newfoundland is shipping iron ore to manufacturing centers in the United States, Canada, and England. At first the iron ore was mined slowly. In recent years, however, more than 1,500,000 tons have been exported annually.

What is the importance of Newfoundland's timber and mineral resources to her neighbors? The forests and minerals of Newfoundland which were left untouched for so long will undoubtedly become more important than they are at present. Newfoundland's neighbors—and especially the United States—have used up so much of their own natural resources that they may have to import forest products and minerals from Newfoundland in the future. In return, Newfoundland will receive food and manufactured goods.

This same sort of development seems to be in store for Labrador, which lies across the Strait of Belle Isle.

1 LOCATION



2 SIZE
COMPARISON

THE STORY OF NEWFOUNDLAND AND LABRADOR TOLD BY MAPS

1. LOCATION. Truly, Newfoundland and Labrador are "lands that face the sea."

2. SIZE COMPARISON. Newfoundland and Labrador match California in size.

3. THE "STEPPINGSTONE." Not every nation can claim intercontinental value.

4. PRODUCTS OF LABRADOR. We are right in saying that only a very small part of Labrador's wealth is known.

5. PRODUCTS OF NEWFOUNDLAND. Her fisheries are Newfoundland's leading source of wealth. Forests and mines follow.

3 NEWFOUNDLAND—THE "STEPPINGSTONE"

Newfoundland is nearer to Europe than any part of North America. It lies about halfway between Chicago and Ireland.

At Stephenville is a U. S. Army air base—a "jumping off" place for military planes.

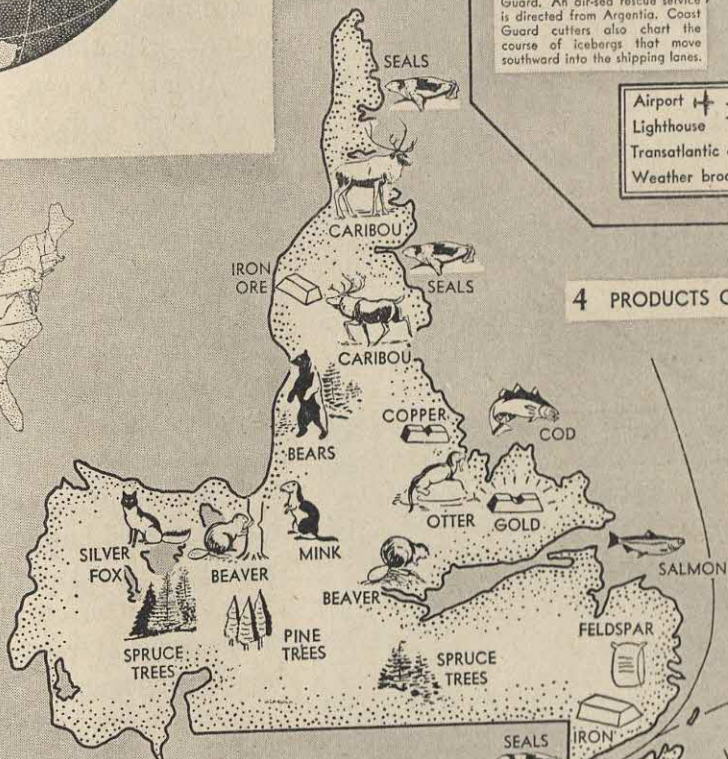
BELLE ISLE

At St. John's is a coal and fuel-oil station to serve ocean vessels. Boats can also be repaired. An international wireless relay station is located here. St. John's is a terminus for transatlantic submarine telegraph cables.

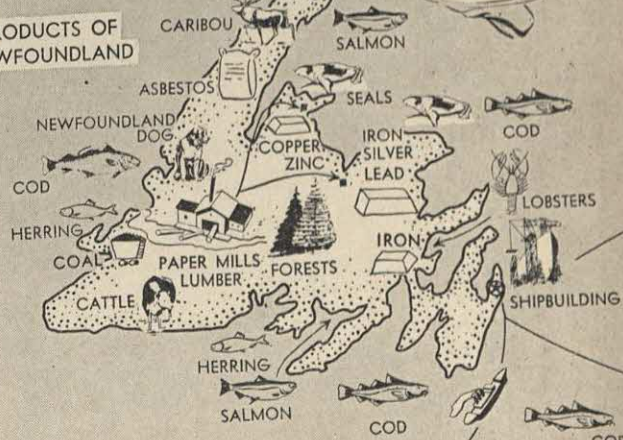
Argentia is an important naval and air base of the U.S. Coast Guard. An air-sea rescue service is directed from Argentia. Coast Guard cutters also chart the course of icebergs that move southward into the shipping lanes.

Airport
Lighthouse
Transatlantic cable line
Weather broadcasting station

4 PRODUCTS OF LABRADOR



5 PRODUCTS OF NEWFOUNDLAND



LABRADOR—NORTH AMERICAN FRONTIER

During the night an old man and a young girl died. The people in the little fishing village felt helpless as the sickness spread. They asked the fishermen whether the distress flag that was flying in the harbor could be seen plainly at sea. That afternoon an excited shout was heard from down by the waterfront. Quickly the news spread that Dr. Grenfell's hospital ship had been sighted coming into the harbor. Within half an hour Dr. Grenfell and his assistants were busy helping the sick.

"This incident happened many years ago," Mr. Anderson tells us, "but Dr. Grenfell's name is still remembered by the villagers, and indeed, by everyone in Labrador."

Who was Dr. Wilfred T. Grenfell? While a young man in England, Dr.

Grenfell became interested in helping poor people who were sick. Later he moved to Newfoundland. In 1892 he set sail for Labrador, where he devoted the rest of his life to improving the health and living conditions of the Indians, the Eskimos, and the white people.

What did Dr. Grenfell find in Labrador? He found a cold, inhospitable land tucked away in an almost forgotten corner of North America. To the east was the Atlantic Ocean, to the west, the empty lands of the Canadian province of Quebec. He found that the summer season of open waters was short and cool. During the six months of winter ice blocked most of the coast line and every lake and river froze over. He found it a much colder land than his native England, though both were at about the same latitude. The ocean currents caused this difference. The warm North Atlantic Drift helped to make England's climate mild. The cold Labrador Current flowing down from the Arctic regions kept Labrador cold. This cool weather prevented the growing of crops which were common in England.

In the early days of Dr. Grenfell's work in Labrador, most of the inhabitants were Eskimos and Indians. The Eskimos lived in the barren, treeless regions of the north. Their food consisted largely of seals and fish, caribou, wild

These Labrador Eskimos are paddling out to greet a visiting schooner in their kayaks—boats made of skin stretched on wood or bone frames. The Eskimos look much friendlier than Labrador's bleak and rocky coast in the background.

Capt. Bartlett from Gendreau



birds and their eggs, and berries from the low bushes. The Indians lived in the highland forests that cover most of the interior of Labrador. They hunted game for their food.

The few white men that Dr. Grenfell found in Labrador were mostly descendants of early fishermen who had established little villages on the coast. A few traders and trappers roamed through the interior. All of these people needed medical help when Dr. Grenfell arrived.

How did Dr. Grenfell help the people of Labrador? Besides his heroism in searching out and treating the sick in this cold, wild part of the continent, the missionary doctor wrote many books about this American frontier. His readers contributed money which was used to build hospitals and purchase hospital ships and medical supplies.

Dr. Grenfell worked to prevent disease as well as to cure it. He taught the inhabitants lessons in hygiene and clean-

liness. He taught them to raise quick-growing vegetables in the sheltered valleys—and most important—long before he died, Dr. Grenfell trained assistants among the people to carry on his work throughout the land.

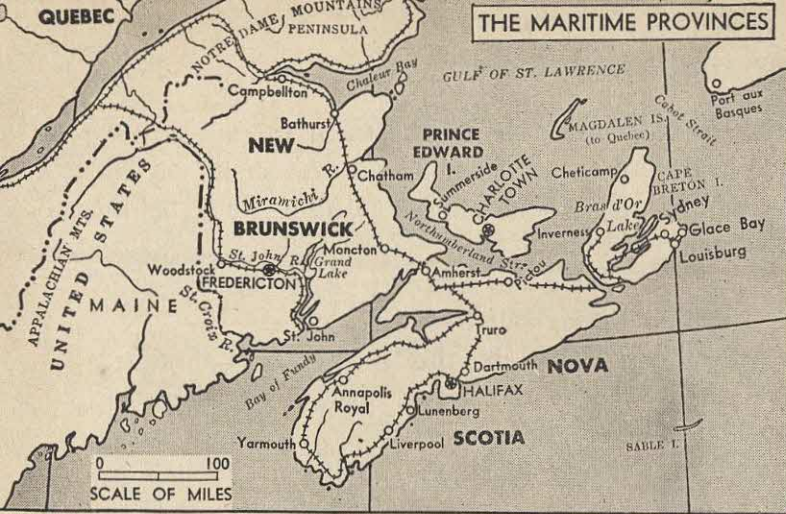
What is the future of Labrador? Today the largest town in Labrador has but 300 people. There are only 5,000 people in all the territory, and half of these are Indians and Eskimos. Most of the inhabitants still make their living trapping and fishing. Labrador's future, like Newfoundland's, lies in her untapped wealth of forest and mineral resources. Not long ago scientists discovered an unusually rich deposit of iron in the interior. Right now it is of little value. But some day, when iron ore becomes scarce in Canada and the United States, the people of Labrador will be given help in developing this rich iron deposit. Then the progress of Labrador will surpass the hopes of Dr. Grenfell, Labrador's friend.

THE MARITIME PROVINCES OF CANADA

Late in the spring of 1749, hundreds of Micmac Indians paddled their canoes into the bay of Chebucto—"The Great Harbor." Several different bands of the tribe were gathering for a great powwow. These shores were a favorite meeting place of the Indians living along the coast.

Wigwams were put up, and soon the Indian children ran from tent to tent looking up old friends. The Indian women sat quietly in front of the wigwams, watching the men paint their faces for the ceremonies.

On the first day of summer a British man-of-war slowly entered "The Great Harbor." This ship did not surprise the Micmacs. They had seen many white men's ships sail into Chebucto. Micmac stories told of the first great white captain, who had stopped here hundreds of years ago. Some historians say this was Leif Ericson. This great white captain had sailed away, and so had all the other white men who had visited Chebucto afterwards. It seemed as if only the Micmacs recognized the advantages of "The Great Harbor."



The Maritime Provinces are very nearly surrounded by water. How many bodies of water do you see on this map? Trace the railroads. See how they follow the coasts or cut across country to the main ports. During the winter, the traffic is heavy to and from the west because the St. Lawrence River is frozen over.

What did surprise the Indians this time was that more and more ships kept coming after the man-of-war. During the next three days thirteen British transports followed the escort sloop into the harbor.

The Micmacs were surprised even more when women and children as well as men disembarked from the transports. Up to now only explorers, fishermen, pirates, and sailors had bothered stopping at Chebucto.

The English people immediately began unloading food, tools, building material, clothing, scientific instruments, medicines, hardware, weapons, and ammunition. Ministers, officials, doctors, lawyers, shopkeepers, and carpenters helped put the supplies ashore. The transports had brought 2,576 settlers. They immediately set to work laying out and building what in those days was a good-sized town.

"You can see," Mr. Anderson tells us, "that the Micmacs were watching an entire English community being unloaded on the green shores of Chebucto. The British government had heard about 'The Great Harbor.' These English people had come to Chebucto to build a port

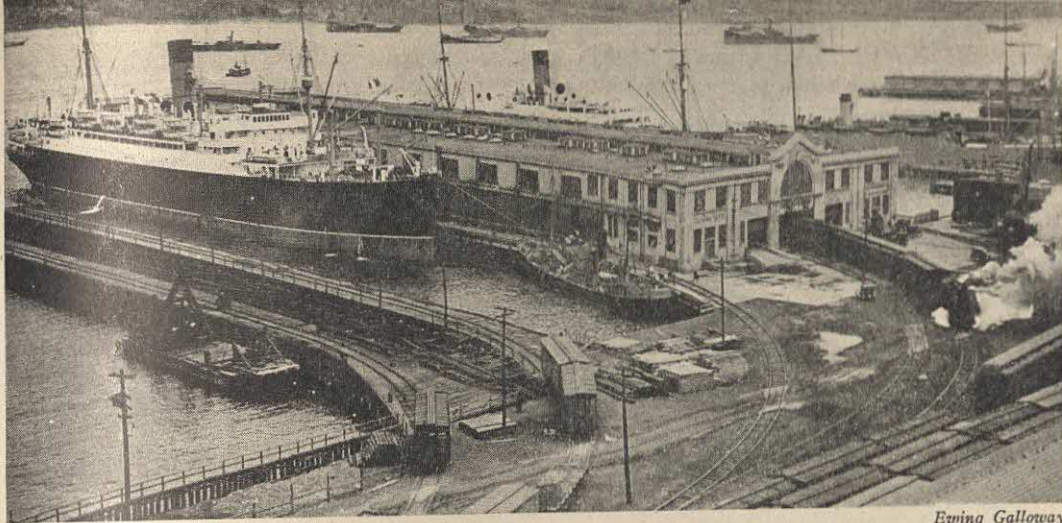
like Boston or New York. The settlers named their new town Halifax after the British official who was in charge of colonies. Chebucto Bay is now called Halifax Harbor. Halifax is one of the great Canadian ports, and the largest city in the *Maritime Provinces* of Canada."

Why is the southeastern part of Canada known as the Maritime Provinces? Mr. Anderson explains that the first half of the word *maritime* comes from the Latin *mare*, meaning "sea." Countries which border on the sea are maritime countries.

A glance at the map will show that southeastern Canada includes three states, or *provinces*, as they are called in Canada—Nova Scotia, New Brunswick, and Prince Edward Island. All three are surrounded partly or entirely by ocean waters.

Why is Halifax the largest city of the Maritime Provinces and one of the great Canadian ports? As we approach the entrance to the harbor of Halifax, we are amazed at the great number of ships in these waters.

Our guide tells us that Halifax has one of the finest harbors in the whole world. It is open for shipping the year



Erving Galloway

The winter months at Halifax' bustling harbor are especially busy, for many of Canada's other ports are icebound. Notice how the railroad tracks run right onto the piers. Goods can be loaded into box-cars here at the sea's edge for direct shipping to distant parts of Canada.

round. Mr. Anderson explains what he means by a good and open harbor.

A good harbor is one in which ships of any size, from the largest passenger liners to the smallest freighters, can dock to receive or discharge cargo. The harbor is large enough to handle hundreds of ships at the same time.

The fact that the harbor of Halifax is open or ice-free the year round is also important.

"Look at the map again," Mr. Anderson says. "Notice how the St. Lawrence River is the 'Main Street' of Canada. During the warm season thousands of ships from all over the world sail up this river to ports far inland to deliver cargoes of coal, raw materials, and manufactured goods.

"But during the five to seven months of winter when the St. Lawrence is frozen over, the railroads must carry these products to and from ice-free ports. The greatest of these in Canada is Halifax. No matter what the weather this harbor never freezes over.

"Because Halifax had a good harbor that was always open, many people were needed for the work of receiving and shipping goods for eastern Canada. The port city of Halifax thus became the largest city of the Maritime Provinces."

Some of the sights in Halifax. In our hotel in Halifax we meet a Canadian mining engineer, Mr. MacDonald. He offers to spend part of his vacation taking us to interesting places in the Maritime Provinces and telling us about them.

As we ride about the city of Halifax in our guide's automobile, we see people doing the same things that we do in our own cities. Many of the buildings look like ours. The automobiles are familiar ones. Even the accents of speech do not seem so different from what we have heard in different cities in the United States.

We pass the old Parliament Building—for Halifax is the capital of the province of Nova Scotia—and the modern structures of the business district. On our way to the Canadian National Rail-

way we go through the manufacturing center, where we see busy iron works and machine shops.

We see the shipyards and realize that shipbuilding must be an important industry. The tall smokestacks help us locate Canada's largest sugar refinery down at the edge of the harbor. We also pass the customhouse and the six magnificent piers. Each of the piers extends a thousand feet out into the harbor.

Upon reaching the eastern terminus of the Canadian National Railway, we are impressed by the heavy passenger and freight traffic. Engines and cars are constantly moving back and forth on many tracks. We try to imagine how busy these tracks must be in winter when ice keeps boats off the St. Lawrence.

As we drive past the Citadel—the fort on top of a hill—we ask our guide to tell us the history of the Maritime Provinces.

Who first settled in the Maritime Provinces? We remember that the French founded a colony at Port Royal, now Annapolis Royal. This was the beginning of the colony called Acadia. Mr. MacDonald tells us that Acadia is now the province of Nova Scotia and a part of the neighboring province of New Brunswick.

Then in 1621, just a year after the Pilgrims landed on Plymouth Rock in Massachusetts, the English planned their first settlement in Canada. The king gave a Scotchman a charter for the land of Acadia. The Scotchman called his grant *Nova Scotia*, which is Latin for *New Scotland*.

Why did England and France both want Acadia? Our guide tells us that both the English and the French liked

Acadia's fertile soil and its mild climate with plentiful rainfall. Then, too, both England and France wanted Acadia because it was nearer to Europe than most parts of North America. Do you think that England and France might also have wanted Acadia because it guarded the entrance of the St. Lawrence River? Why was this important?

Since both the English and the French settlers claimed the land, a feeling of rivalry and jealousy developed which lasted for more than a hundred years. During this time ownership of Acadia changed eight times. The struggle between the English and the French became more bitter as time went on. Finally, France surrendered Acadia to England.

What happened to the French Acadians? The British soon discovered that the Acadians remained French in their sympathies and customs. Since the struggle with France for control of North America was likely to flare up again in open warfare, the English required all French Acadians to take an *oath of allegiance* to the King of England.

Many of them refused to do this. So 6,000 Acadians were carried away from their homes and scattered among the English colonies from Massachusetts to Georgia. Their homes were burned behind them to discourage them from returning.

The American poet Longfellow, in *Evangeline*, gives a beautiful and accurate description of the everyday life of the French colonists before their exile. Perhaps you would like to read *Evangeline* to learn about the Acadians.

Have you ever read of any other peoples who were forced to leave their homes

Telephone wires, automobiles, and paved roads have not driven the old French-Canadian ways out of Nova Scotia. An oxcart like this is a common sight.



when a different country gained control of their lands?

Why is the story of the early days of New Brunswick interesting to us? Mr. MacDonald tells us that the founding of the Province of New Brunswick is interesting because of its connection with the United States.

We remember that as a result of the Revolutionary War our country won its freedom from England. But not all the people who then lived in the new nation wished to be Americans. Some preferred to remain British subjects. These people were called *Loyalists*.

Some of the Loyalists decided to move away. Others were driven from their homes because of their British sympathies. In 1783 and 1784, after the close

of the Revolutionary War, about 40,000 Loyalists left the United States and went to Canada to live. Most Loyalists settled throughout eastern Canada, and many of them made their new homes in what is now New Brunswick.

Many of these Loyalists gave up important positions and a comfortable life in the United States in order to remain loyal to England. Most of them had to begin all over in Canada by clearing the land and building their own homes.

We can readily understand that these Loyalists were a strong and determined people. They have taken an important part in the affairs of Canada. Today it is the proud boast of many famous Canadians that they are descendants of the Loyalists.

HOW DO THE PEOPLE OF THE MARITIME PROVINCES LIVE TODAY?

The next morning is clear and sunny. As we drive from Halifax southwest to the city of Lunenburg, we catch glimpses of the sparkling ocean on one side of the coastal road. On the other side we see many farms extending far inland to the forested hills.

During our drive Mr. MacDonald re-

minds us that everywhere throughout the world people live in certain ways because of their surroundings. We say that the way they live depends on their surroundings—or *environment*. Eskimos of the far north eat seal meat, dress in furs, and build houses that suit their environment. The Arabs of the desert raise



Potatoes are an important crop in the Maritime Provinces. This Nova Scotian is cultivating his by horse-power instead of gasoline power. Notice the rolling hills and scattered trees in the background.

Courtesy Canadian Government

sheep and goats and ride camels because of their environment.

In like manner the people of the Maritime Provinces live in certain ways because of their environment.

Why are the surrounding ocean waters an important part of the environment of the Maritime Provinces? Land areas heat up quickly in summer and cool off quickly in winter. Water heats up slowly in summer and cools off slowly in winter. Therefore, in the summer when the land is hot, the water is still cool. Breezes from the water cool the land.

In the winter just the opposite occurs. The land cools off rapidly, but the sea remains warm longer. So the breezes from the warmer sea keep the land from getting too cold. Thus the seas help to give all maritime countries a temperate climate—one that does not get too cold or too hot for comfort.

There is still another reason why the Maritime Provinces do not get very cold in winter. What ocean current flows near the Maritime Provinces? How does it affect the climate?

Why are most of the people of the Maritime Provinces farmers? Our guide tells us that it is because the land is well suited to farming. We have learned that

the waters surrounding these provinces keep the climate temperate and that the Gulf Stream also helps to warm the land. So the provinces have a suitable growing season. But a farming country requires two other advantages—good soil and plentiful rainfall.

The winds that blow from over the waters bring a good supply of rain, about as much as falls in the eastern part of the United States. Many kinds of crops will grow with this much rain if the soil is good and the temperature right.

Much of the soil in the Maritime Provinces is rich. The valleys and the river basins have been made fertile by the rich soil which has been deposited there by the rivers. These fertile lands yield large crops of hay, oats, potatoes, barley, buckwheat, and wheat. Some of these same crops are also produced on the rolling uplands. Then, too, the marshes along the seashore have been carefully drained and now produce unusually large crops of hay.

We see livestock grazing on the farms. Mr. MacDonald tells us that much dairy farming is carried on in these provinces. Almost every farm family makes its own butter and cheese, and many farms have a surplus of dairy products for sale.

Fruit farming is a growing industry in eastern Canada. The richest apple orchards in the country are located on the west side of this peninsula, along the coast of the Bay of Fundy. Many tourists visit that region in the spring to admire the beautiful pink blossoms that hang over the land. But it is during the picking season that farm boys hurry home from school to help take the gold and red harvest from the trees. Millions of barrels of apples are exported annually to other American countries and to Europe.

Small fruit and berries grow especially well in this region. Most of the berries ripen late and, therefore, bring high prices in the near-by New England markets.

Because we know something about the environment of the Maritime Provinces we can understand why more people make a living by farming than by any other occupation.

What other kind of farming is important in the Maritime Provinces? Now we pass a farm surrounded by high fences and with many small buildings that look like dog houses. This is a fur farm, our guide says. There are almost three thousand fur farms in the Maritime Provinces.

In the early days most of the furs were obtained from the Indians by white traders. Later, white trappers also began to bring out pelts from the wilds of Canada. But the demand for furs was so great that the trapping of wild animals

could not fill the need. So early in this century two Canadians got the idea of establishing a fur farm and breeding silver foxes. They did this secretly for a while in a remote part of Prince Edward Island.

But the idea of breeding silver foxes soon spread throughout Canada, the United States, and Alaska. Black, blue, white, and red foxes are now bred also. Some of the fur farms raise minks, martens, raccoons, and skunks. The fur of these animals is usually better than that found on the wild ones which have hunted for their food and whose skins are often torn by traps.

Why do many of the people make a living in the fishing industry? As we near the city of Lunenburg, Mr. MacDonald asks us to look out to the ocean and to tell him what we see. We see many boats, two-masted schooners, trawlers, motor launches, and dories. Most of them look like fishing boats to us. Our guide tells us that we are right. In spite of its small population Lunenburg is one of the most important fishing centers in North America.

Our guide reminds us of what we have learned about environment. People make their living according to their surroundings. In the waters off the shores of the

The shallow fishing banks that stretch from Cape Cod to Newfoundland help make this area a fisherman's paradise.



Maritime Provinces are some of the richest fishing banks in all the world. Indians first fished in these waters. Many of the early white settlers were fishermen. Today thousands of men of the Maritime Provinces make their living fishing on these same banks. Other thousands of workers engage in cleaning, smoking, drying, salting, canning, packing, and shipping fish.

Near the docks we see thousands upon thousands of split codfish spread out to dry. These were caught out on the fishing banks. Cases of fresh, dried, and salted fish are stacked high near the railroad tracks and on the piers. These fish and other sea foods such as lobsters, oysters, and clams, which are caught close to the shore, will be shipped to the interior of Canada, to many American countries, and to Europe.

How do thousands of workers make a living from the forests? We pause before a paper mill in the city of Liverpool after a short drive southwest from Lunenburg. Our guide tells us that this mill was built because extensive forests are a part of the environment of the Maritime Provinces; hundreds of people work in it making newsprint paper.

Mr. MacDonald tells us that away from the coasts and river valleys, the land is rolling, with forest-covered hills and mountains. If we were flying over these lands, we could see below a never-ending carpet of green trees.

Most of these trees are softwoods such as fir, spruce, and hemlock. These are used for the manufacture of paper. Thousands of trees must be cut each year just to keep this one mill at Liverpool operating.

There are also many hardwood trees such as ash, maple, oak, and birch. The great demand for lumber for houses and furniture has made the hardwood industry here one of the most important.

So we see that the forests of the Maritime Provinces keep thousands of workers employed as lumberjacks, rivermen, truck drivers, sawmill operators, and paper-mill workers. These rough-and-ready workers are much like the forest workers of our New England States.

Not much of the lumber and paper made in the Maritime Provinces is used here. Most of it goes to England and the eastern cities of the United States.

How do people of the cities make a living? When we return to Halifax in the late afternoon, we see workers leaving factories, stores, and office buildings to go home. The scene is the same as in cities of the United States. Our guide

These leathery-looking objects are split codfish drying in the sun. Cod is a very nourishing food, and the oil which is extracted from cod livers is rich in vitamins. Most of the dried and salted cod caught off the coast of Canada and the United States is shipped to Brazil, the islands of the Caribbean, or the Catholic countries of Europe. Why is this so?

Erwing Gallorway



Iron and steel mills make Sydney the industrial center of the Maritime Provinces.

Canadian Government
Information Service

tells us that most of the people who live in the cities of the Maritime Provinces make their living doing the same things that are done in cities around the world:

They make things.

They buy and sell things.

They ship things.

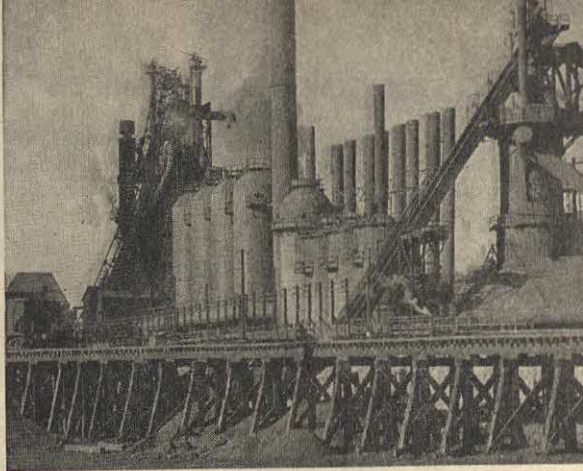
In Lunenburg we saw that many people are engaged in buying fish from fishermen, drying and packing them, and shipping them inland or exporting them.

We saw that people in Liverpool buy logs, make paper, and ship this manufactured product to paper users in the United States and England.

Halifax, we saw, is a great shipping center. Because of its location and environment, Halifax is very important to workers in the interior of Canada. Their crops, minerals, and manufactured goods are sent to ports like Halifax for shipment to other lands.

Why do many people in the Maritime Provinces make a living in the tourist industry? The next day we drive through the wooded regions of Cape Breton Island. We see many tourists from the United States and other parts of Canada.

Mr. MacDonald tells us that again the one word *environment* explains the flourishing tourist trade of these provinces. The cool, pleasant climate, the beautiful scenery, and the many beaches attract vacationers. Many people come here to hunt and fish. These tourists provide employment for large numbers of workers in hotels, camps, dining rooms, restaurants, and on truck farms.



What is the most important industrial city of the Maritime Provinces? After we have traveled halfway up the eastern coast of Cape Breton Island, we see ahead of us long ribbons of smoke flying from tall stacks.

"Those chimneys breathe out sparks and smoke day and night," Mr. MacDonald says. "That's Sydney, center of the iron and steel industry of Canada. The reason for this is not hard to find. Remember the word environment? Experts say that Sydney, Nova Scotia, and Birmingham, Alabama, are among the few regions in the world where the three minerals needed in manufacturing steel—limestone, coal, and iron ore—are found close together."

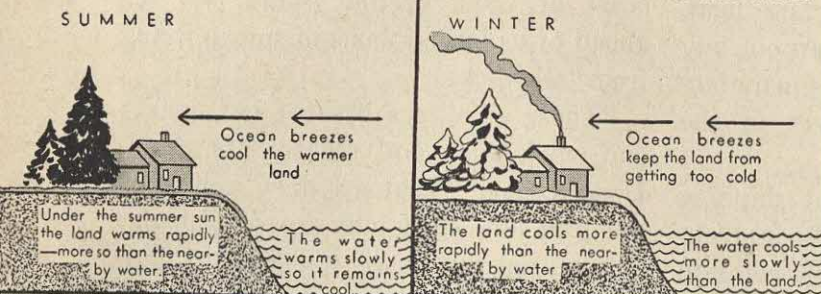
Near Sydney there are large deposits of limestone, seams of coal that extend for miles under the land and the surrounding ocean, and a supply of iron ore. In addition, much iron ore is brought in by boat from near-by Newfoundland.

From Sydney's fine harbor there pours an endless stream of plates, rails, bars, and other iron and steel products for use all over the world. Compare the location of Sydney and our own Pittsburgh. From which city can steel be shipped most economically to Europe?

1. **SIZE COMPARISON.** The three Maritime Provinces have a combined area of more than 50,000 square miles—about the size of North Carolina. Yet their population is only one-half that of North Carolina. Compared with their fellow provinces of Canada, however, the Maritime Provinces make a better showing: they are the three smallest and the three most densely populated. Together they are one-fourth the size of the next largest province, Manitoba, but support one-half million more inhabitants.

3. **REGIONS.** This map shows us that Prince Edward Island is a farming province. Potatoes and hay lead in value. In Nova Scotia coal has by far the most value, being $2\frac{1}{2}$ times that of fish. New Brunswick's leading products are from her forests: wood and paper.

SUMMER



3 REGIONS

General farming
Woodlands
Coal fields

4 PRODUCTS OF THE MARITIME PROVINCES

The map illustrates the primary products of the Maritime Provinces of Canada, categorized by region:

- NEW BRUNSWICK:** Timber, Oats, Dairy Products, Potatoes, Paper Pulp, Furs, Cattle, Hay, Coal, Oil, Textiles, Fish Products, Fruit, Water Power, and Hay.
- PRINCE EDWARD ISLAND:** Gypsum, Coal, Steel, Iron, Poultry Products, Timber, Water Power, Grain, Dairy Products, Hay, Lumber, Coal, and Vegetables.
- NOVA SCOTIA:** Fish, Lobsters, Manufacturing, Gold, Furs, Paper, Farming, Water Power, Apples, Fish Products, Timber, Vegetables, Fruit, Shipbuilding, and Hay.

NOVA SCOTIA

A VISIT TO SOME OF THE INTERESTING PLACES IN THE MARITIME PROVINCES

During our travels we have heard much of the great tides in the Bay of Fundy. We decide that this would be an interesting place to visit. As we drive through the beautiful, rolling countryside of Nova Scotia on our way to New Brunswick, we are surprised to see such fine, up-to-date farms. These farmers no longer live as simply as did their ancestors. They make use of modern, scientific methods. Like most people in the cities and in large industries, these farmers are progressive.

When we reach the Bay of Fundy, we see many dikes along the sea. These have been built by farmers to keep the sea water from flooding the fields during high tide. Every few years, however, these farmers let the tide waters overflow their fields. The fields are then allowed to rest for a year. During that year the land takes minerals from the ocean water; and when the fields are again planted, they are remarkably fertile and produce large crops.

As we approach the river town of Moncton in southeastern New Brunswick, one of our party exclaims, "Look at the boats stuck in the the mud!"

"Just wait fifteen minutes, and they won't be stuck," remarks a Scotchman standing at the water's edge. We wait on a dock and look down at a stranded boat, her mast tilted crazily. Other ships

are resting on the river's mud bottom with just a few inches of water around them. Crews are standing idly by, smoking their pipes, waiting for the tide to come in.

We hear a shout, "There she comes." Far down the river we see a wave of water riding upstream and behind it another and another. The tide is pushing up the river, raising the water higher and higher.

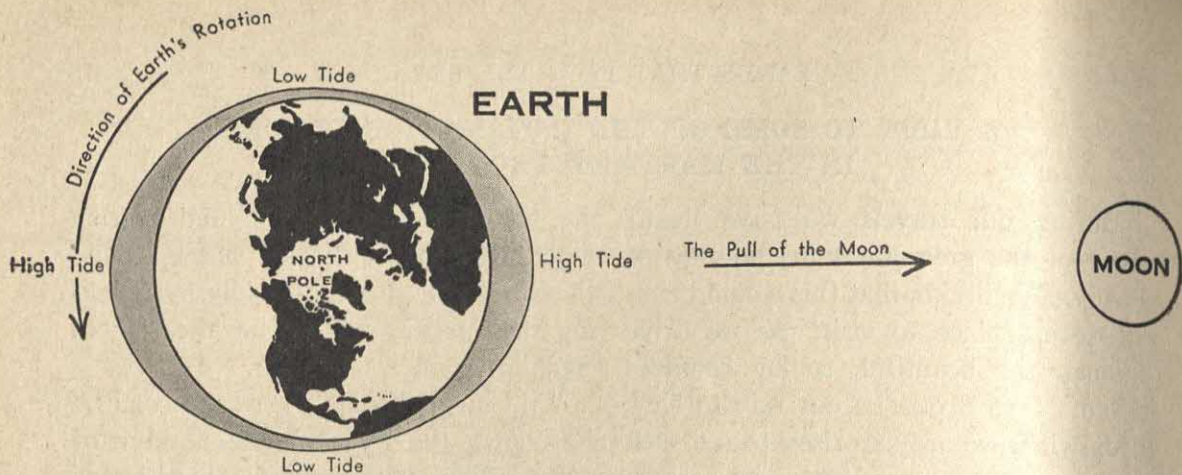
Before we leave, the water has risen twelve feet. Every boat is afloat. The crews are all busy. High tide will not last long: so cargo must be loaded or unloaded and the boats must be off for other ports before the water falls too far.

At last the tide turns and the water

The ebbing tide has left these boats high and dry in a harbor near the Bay of Fundy. The one in the background will soon be aground, too. But wait till the tide comes rushing back.

Ewing Gallotway





THE INFLUENCE OF THE MOON IN CAUSING TIDES

Ocean tides are caused by the pull of the moon and the sun on the earth. This pull, or attraction, is called gravitation. If one jumps into the air, it is the earth's gravitation that pulls him back. The moon's gravitation causes the waters of the oceans to rise toward it. This is high tide. At the same time, there is another high tide on the opposite side of the earth. There are low tides between these two high tides. In about six hours—as the earth rotates on its axis—there will be high tides where the low tides were and low tides where the high tides were.

begins to flow back toward the Bay of Fundy. It is difficult for us to believe that the tides could be so high twenty-two miles from the mouth of the river. These high tides come twice a day.

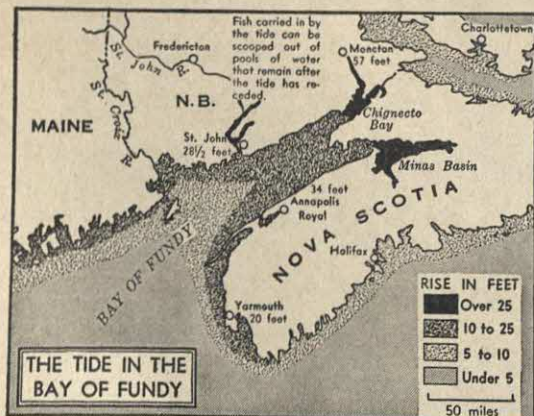
The tides at the Bay of Fundy are among the highest in the world. If we look carefully at our map, perhaps we can discover the reason. Notice that the bay is shaped somewhat like a funnel.

The Bay of Fundy is a great funnel up which the tides roll. As the funnel narrows, the tides get higher. They are highest in the rivers at the narrowest end of the funnel.

As the tides rush up the bay, the water is squeezed into a smaller and smaller channel. So the water rises higher and higher. In some places on the bay the tides are over forty feet high.

What do we want to remember about the Maritime Provinces? As we sail from Saint John around Nova Scotia and into the St. Lawrence River, we try to decide just what are the most important things to remember about Nova Scotia, New Brunswick, and Prince Edward Island. Surely the early history of the people and the wars between the English and French for control of these lands are worth remembering. We should also remember the people that live in these provinces today. They seem much like Americans, sturdy, industrious, and free.

The temperate maritime climate is important. This and the good soil explain the high value of the farm products. The temperate climate also keeps the harbors from freezing over in the winter, and so provides the great indus-



trial cities of Canada with an outlet to all the world the year round.

We decide also that we should remember the great value of the products of

the forests and seas surrounding the Maritime Provinces, and the importance of their coal, iron, and steel to Canada and the world.

YOUR ACTIVITY PROGRAM

In many ways this part of North America is similar to the northeastern part of the United States. For that reason you may be especially interested in checking your understandings of the problems presented in this unit, and in doing the other suggested activities.

Solving the Problems

A. *Recognizing the Problems.*

1. Write in your notebook all the problems presented in this unit. How many are there?
2. How many of the problems deal with history? Place an **H** in front of these problems.
3. How many of the problems in this unit deal with the importance of environment in the lives of the people? Put an **E** in front of these problems.

B. *Gaining the Understandings.*

1. See how many of the following questions you can answer without looking back to the unit. Then check your answers and look up the ones you did not know, so that you will be prepared for a class discussion of the questions.

Are Newfoundland and Labrador part of Canada?

What vessels are replacing the schooners and dories of Newfoundland?

What is the Grand Bank?

In what ways is Newfoundland's geographical position useful?

What important mineral is found in Newfoundland?

In which of these countries did Dr. Grenfell do so much to help the people?

What kind of climate does Labrador have?

What are the three Maritime Provinces?

What is the story of the founding of Halifax?

Why does the word "maritime" apply to this part of Canada?

How does the ocean affect the climate of the Maritime Provinces?

What are the advantages of the harbor at Halifax?

At what time of the year is the railroad terminal at Halifax busiest?

What is Acadia's modern name?

What does Nova Scotia mean?

Why were both the English and the French anxious to keep Nova Scotia?

Why were the French Acadians forced to leave their homes?

Why is the history of New Brunswick especially interesting to the people of the United States?

How do most of the people of the Maritime Provinces make a living?

What are some of the crops of this part of Canada?

What is the importance of fur farms?

What other people are employed by the fishing industry besides those who actually catch the fish?

What are some important forest products of this region?

How has the environment of the Maritime Provinces affected the work done in the cities?

Why is the tourist trade so important in this part of Canada?

To what city in the United States can Sydney be compared? Why?

Describe the cause of tides.

Why is there such a great difference between high and low tides in the Bay of Fundy?

2. Make a short outline of the understandings you have gained about each of the problems in this unit. Put an **X** beside the five understandings you think are the most important.

3. Be sure that you can locate the following places on the map, and tell the importance of each:

Annapolis Royal	Lunenburg
Argentia	New Brunswick
Bay of Fundy	Newfoundland
Cape Breton Island	Nova Scotia
Fort Louisburg	Prince Edward Island
Grand Bank	Saint John
Halifax	St. John's
Labrador	St. Lawrence River
Liverpool	Sydney

Enriching the Understandings

1. Can you think of two breeds of dogs which are named after two of the lands in this unit? Find out more about them and how they got their names.
2. Read more about Dr. Grenfell and dramatize an incident from his experiences in Labrador.
3. Choose several members of the class to do a dramatic reading of *Evangeline*. Or dramatize the story, arranging appropriate costumes and scenery if possible.
4. Read some books about Newfoundland, Labrador, and the Maritime Provinces and give a report on one of them in class.
5. Add the products of these regions to your product collection.
6. Make a model of the harbor at Halifax and show how ships come in, unload, and leave; and also how products are sent out to the rest of Canada on the railroads.
7. Get a large map of the Maritime Provinces and send for as many travel folders as possible. Then plan a trip which will visit many places besides those you saw in this unit.
8. Make a short outline of the contributions which the Maritime Provinces, Newfoundland, and Labrador make to the rest of Canada. You will want to compare them with the contributions of other parts of Canada as you study them.
9. Make up a menu which contains as many fish dishes as you can think of. See if you can find an opportunity to taste some of them.
10. Look up more about the history of the wars between the French and English, especially as it applies to the Maritime Provinces. Make a report in class.

Applying Your Knowledge

Write a short paper on how the people live in Newfoundland, Labrador, or the Maritime Provinces. Include some of the understandings that you have gained from this unit, and look up some extra material. If you would like to try writing the paper in story form about one family, for example, you may do that. Or you may write a historical paper on how the people used to live in these regions.

Forming Opinions and Attitudes

Labrador has many valuable resources, but neither she nor Newfoundland have enough money to develop them. This is also true of many other countries in the world. Do you think it would be better to allow businessmen from richer countries to develop the resources and take the profits back to their own countries, or to leave the resources undeveloped? Do you think any other solution to this problem could be worked out?

For many years the border between the United States and Canada has been just like a state line in the United States, except that officials are stationed along the roads to check the papers of people who are leaving one country and entering the other. In other parts of the world borders between countries are often lined with troops and bristling with guns. Why do you think this is not the case with Canada and the United States? Consider carefully which kind of border is the better and why.

In this unit we have discussed the effects of the environment of the Maritime Provinces upon their people. Try to decide on some of the ways in which your environment has affected you. Do you think an understanding of the importance of environment can help to promote peace and understanding between nations?

Consider carefully, and try to form an opinion about each of the following questions:

Is it right to raise animals and then kill them, just for their fur?

Should the Acadians have been allowed to remain in Nova Scotia?

What is the right way for us to feel about those who were Loyalists during the American Revolution? And about their descendants?



The Bettman Archive

On his first voyage in 1534 Cartier claimed Canada for France and Christianity by raising this cross on the Gaspé Peninsula. He probably would have been surprised had he known what a vast land he was claiming for France. Notice the Indians in full dress watching the ceremony.

13. *The Populous Provinces*

Our boat skirts the green shores of the picturesque Gaspé Peninsula. We see tourists on the trails of the bluff where years ago Indians watched Cartier claim this land for France.

The far north bank of the St. Lawrence River is not even visible, and we marvel at the width of the river mouth.

"Yes," a passenger beside us at the rail says, "we are now sailing over what may once have been dry land. Thousands of years ago, this part of North America sank. The ocean covered the low coastlands. The Gulf of St. Lawrence grew larger, and the mouth of this river opened wider. Today scientists call this region the *Drowned North Atlantic Coast*."

The speaker introduces himself as Louis Chapelle (lōō'ē' shā'pēl'). We are delighted to meet a French Canadian.

Monsieur (mēs·yū') Chapelle is traveling with us as far as Montreal, where he lives. He promises to point out some of the interesting sights of the province of Quebec as we sail up the St. Lawrence.

Why are Quebec and Ontario called the "populous provinces"? Our guide explains that more people live in Quebec and Ontario than in the other Canadian provinces. Ontario, with more than three and three-quarter million inhabitants, is the most populated province; and Quebec ranks next with nearly three and one-third million inhabitants. The combined population of Ontario and Quebec is more than half of the total population of Canada. Montreal, the largest city in Canada, is in Quebec; and Toronto, the second largest city, is in Ontario. Montreal's population is nearly 1,000,000.

QUEBEC—THE FRENCH-CANADIAN PROVINCE

We see farmhouses lining the bank of the St. Lawrence River. How overgrown with thick forests this land must have been in the days of Cartier, Champlain, and the first settlers!

"It took many years before this long river valley was all settled," M. Chapelle says. "Some of the first farmers lived a great distance from their neighbors. Many of the early French farmhouses were surrounded by stockades with towers at the four corners. This was because Indians often attacked the more isolated farms.

"The history of the early settlers is filled with stories of the heroism of these farm families. One of the best known is the story of a fourteen-year-old girl named Madeleine, who lived on a farm along the St. Lawrence River.

"Many years ago about forty Iroquois attacked this farm. Madeleine's parents were away on a visit. Although there were two soldiers and two other men on the farm at the time, Madeleine assumed command.

"The girl used the two soldiers to stand guard over the frightened people who were placed in the blockhouse. She then stationed an eighty-year-old man in one of the corner towers on the wall, her twelve- and ten-year-old brothers in the second and third towers, and herself in the fourth tower.

"These four fired so furiously and accurately that the Iroquois were sure they were fighting a force of sharpshooters. The attackers retreated to the near-by forest and planned to take the farmhouses by stealth. But every time some Indians tried to crawl up to the wall, the

children and the old man shot them or drove them away.

"A week later help came, and the Iroquois were driven away for good. After a rest, Madeleine and her brothers returned to doing farm chores and playing games."

How did the St. Lawrence River help in the settlement of Quebec? The early settlers entered Quebec by way of the St. Lawrence. They stopped along its banks and cleared the land of trees so that they could build homes and grow crops. The colonists built their houses close to the river because it was the only highway leading to the other settlements and to the outside world. Of course, there were no roads. Crops grown in fields behind the farmhouses were shipped from wharves built in front of the homes. The first towns grew on the banks of the St. Lawrence as ports and trading centers. The St. Lawrence River became the "main street of Canada."

What is unusual about the farms along the St. Lawrence? In some places along the riverbank the neighboring farmhouses are very close together. We feel that some of these farms must be the size of gardens. Our guide explains that most of the farms along the river are from 100 to 200 yards wide at the river front, but they usually extend half a mile or more back from the river. In this way, as many settlers as possible have farms facing the St. Lawrence.

"As you can see, Quebec has many towns close to the St. Lawrence River," M. Chapelle says. "There are only a few elsewhere. Your maps will show that this is so."

When the early pioneers first settled in Canada there were no roads. The only route to the outside world was the St. Lawrence. So they divided the land into long, narrow strips to give each farmer a front on the river. Also the settlers' houses were built close together for protection against the attacks of hostile Indians.



Why do most of the people live in southern Quebec? M. Chapelle is right. Our maps show the names of many towns in southern Quebec—in the St. Lawrence River Valley. In the far north there are thousands of square miles without a village or town.

Why is this so? Our guide says that we will understand the reason for this if we understand the difference in the soil, climate, and natural resources of the two regions. In the southern region the land is rich, the rainfall plentiful, and the climate not too severe. The inhabitants find it ideal for farming.

In the north the land and climate are much different. From our maps we can see that this is the region of the Canadian Shield. Here glaciers scoured away most of the soil, leaving a rolling, rocky plateau dotted with thousands of lakes. The poor soil and the cold climate make farming almost impossible in this region.

So it is natural that most of the early settlers stayed in the south where the soil and climate were favorable. As time went on, cities and towns developed in the south, some as river ports, some as trading centers for the farmers, and others as manufacturing centers.

The northern region of Quebec does have some valuable resources. The forests of the Canadian Shield are rich in fur-bearing animals, but not many people

can make a living just by trapping. If too many trappers come into an area, soon all the fur-bearing animals are caught, and then the trappers must leave for other lands.

The forests of the Canadian Shield are themselves a resource, although not of any use today. The cost of transporting lumber through the wilderness to distant markets would be so great that it could not be sold profitably. So there are no forest workers in the far northern reaches of Quebec.

The Canadian Shield is also rich in minerals, and for many years prospectors have been searching for gold, silver, and other valuable metals here. Some have been found, and a few isolated mining communities have sprung up on the southern fringes of this region. But only a few people as yet are engaged in mining in the north.

So even though the northern regions of Quebec do have some valuable resources, they do not yet support a large population.

What is the size of Quebec? Quebec extends north from the United States for more than 1,200 miles—almost to the Arctic Circle. At its widest part it stretches nearly 1,000 miles from the Atlantic Ocean to the neighboring province of Ontario. It is the largest province of Canada.

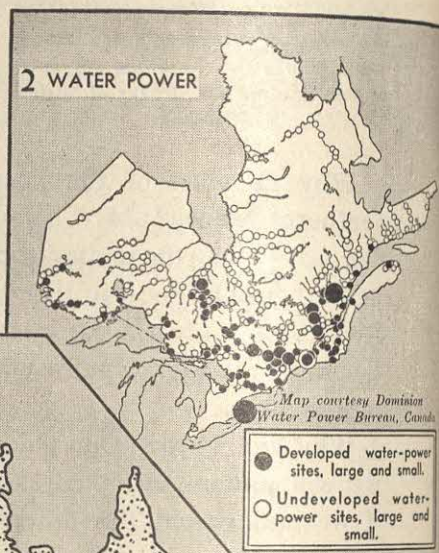
THE STORY OF QUEBEC AND ONTARIO TOLD BY MAPS

7. **REGIONS.** We can see that the busiest regions are in the extreme southern parts. This is due to the more pleasant year-round climate and to the Great Lakes—St. Lawrence River system.

2. **WATER POWER.** These two provinces make more use of their water-power resources than all others together. The size of the dots stand for the comparative horsepower which has been developed. The circles represent the undeveloped, but possible locations of hydroelectric power.

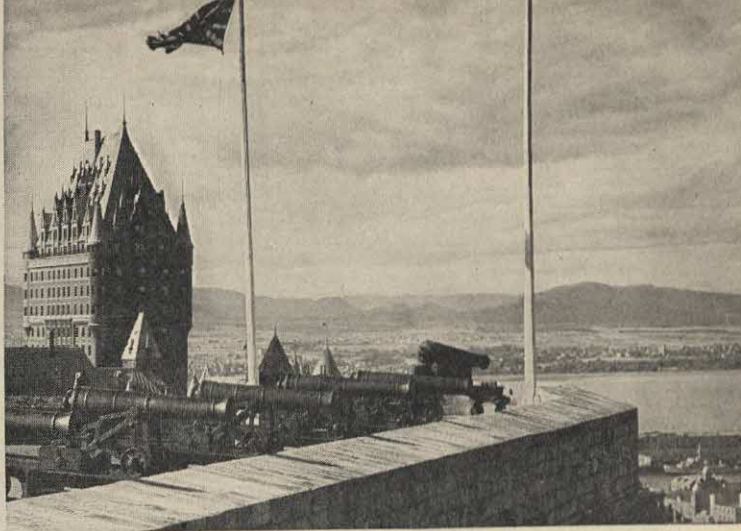
3. PRODUCTS. Quebec and Ontario give to Canada a wide variety of products.

4. SIZE COMPARISON. Together, these two large provinces are almost four times the size of Texas, our largest state.



This picture of Quebec shows the Citadel which the French defended against the English. The many-towered building in the background is a famous hotel, the Chateau Frontenac. Notice the plain across the St. Lawrence River, and the Laurentian Mountains beyond. A small section of Lower Town can be seen in the lower right-hand corner.

Courtesy Quebec Municipal
Tourist Bureau



A VISIT TO THE CAPITAL OF QUEBEC

The city of Quebec is also the capital of Quebec. As we step off the boat at the dock, we recall that Champlain founded this first French settlement on the St. Lawrence River—just one year after the founding of Jamestown in Virginia.

M. Chapelle suggests that we tour the city in a *calèche* (ká'lěsh')—a horse-drawn, open, two-wheeled carriage. Our old-fashioned carriage goes slowly through winding streets where we observe old buildings and modern store fronts side by side. We soon realize that we are indeed in French Canada. The names of the streets, the signboards, the titles on the movie houses are all printed in French. All around us on the narrow streets we hear people speaking French.

A trip through Upper Town. Our *calèche* slowly climbs to the higher part of Quebec. This is *Upper Town*, a section of new homes and offices overlooking the busy harbor.

We see many statues built in honor of the French and English heroes of early Canadian history. Soon we pass the imposing Parliament Buildings that

house the government offices of the province of Quebec. Finally, we come to the Citadel, the walled-in part of the city, located on the huge bluff more than 300 feet above the St. Lawrence River.

We leave our *calèche* and walk with our guide to a park outside the wall. This park, we learn, is the *Plains of Abraham*, which became famous as the spot on which the Battle of Quebec was fought.

What did the Battle of Quebec decide? We have already learned how the French were expelled from Acadia by the English. Later, in 1758, the British captured Fort Louisbourg on the Atlantic coast from the French. The next year, the British army sailed up the St. Lawrence River, determined to seize the capital of French Canada, the stronghold of Quebec.

For a while it seemed that the high cliff upon which the Citadel of Quebec perched could not possibly be scaled by the English troops. But English scouts finally discovered a path to the top of the plateau. The British commander, General Wolfe, moved his troops and



Courtesy National Gallery of Canada

This is "The Death of Wolfe" by Benjamin West, a famous American artist. Notice the messenger on the left who has come to report that the French are retreating.

supplies up the steep and narrow path at night.

By daybreak on the morning of September 13, Wolfe and his army were lined up for battle. They faced in the direction of the French camp. The French general, Montcalm, must have had quite a surprise when he first learned that the English were drawn up in battle array on the Plains of Abraham. It did not take the French leader long to decide on his course. In a very short time he and his army marched against the English.

General Wolfe had ordered his men not to open fire until the French were within forty paces. When the British finally started firing, the French line broke, and the soldiers began to flee in disorder. Soon wounded and dead started to pile up. In vain the officers bravely tried to rally their men for another attack.

During the course of that short battle, both Montcalm and Wolfe were mortally wounded. General Wolfe, while being carried to the rear of the battle line, heard someone shout, "They run! They run!"

"Who run?" asked Wolfe.

"The French, Sir!" came the reply.

"God be praised," whispered Wolfe. "I die in peace."

The Battle of Quebec was the turning point in the *French and Indian War*. The long struggle between the English and the French for possession of Canada and the lands east of the Mississippi was ended with England the victor.

A trip through Lower Town. On reaching the lower part of the city, which is called *Lower Town*, we notice many old two- and three-story houses built in long rows with no space between. We travel over cobblestone streets. There are many signs of old France: the robes of the priests, the garments of the nuns, the strange garments of the young boys going to the French university. A tiny cafe advertises a dinner which includes snails imported from France.

Lower Town seems to be built around the foot of the high cliff we have just left. Our guide tells us that its harbor is always busy. Ships from Europe and from the upper St. Lawrence load and unload cargoes.

Canadians are very fond of all kinds of winter sports: hockey, skating, skiing, and tobogganing. In this picture we see the start of a race down a slide in Montreal.

Courtesy Canadian Travel Bureau



Why do many tourists visit Quebec? M. Chapelle says that thousands of tourists come to Quebec from the rest of Canada and the United States to visit the historic landmarks in Upper Town and to explore the quaint shops of ancient Lower Town.

Vacationers visit Quebec in winter for the fine tobogganing, skiing, and skating this region offers. Gay crowds throng the resorts, and colorful sports outfits — blanket coats, old-fashioned

sashes, and bright-hued mittens and mufflers contrast strikingly with the whiteness of the snow-covered landscape.

A big winter event is the *Dog Derby*. The race course is 90 miles long. Mushers — men who drive dog sleds — come to Quebec from all over Canada for these races.

Whether a city resident or a farmer, the French Canadian is very fond of the colorful costumes and the laughter and fun associated with these winter sports.

HOW THE PEOPLE OF THE PROVINCE OF QUEBEC MAKE A LIVING

On leaving Quebec, we take a bus which follows the St. Lawrence. The fertile plains along the river are wider now. The farmhouses surprise us; many are painted in two or three light colors. Some distance outside of the city of Quebec, M. Chapelle invites us to visit an *habitant* (à'bē'tān') farm. Our guide smiles at our puzzled expressions and explains that an *habitant* is a French-Canadian farmer.

Soon we see in the distance a low-roofed, whitewashed barn. Then the farmhouse appears in view. M. Chapelle tells us that the owner's name is Robert (rô'bâr'). We find M. Robert in the barnyard unyoking his ox team. This

farmer uses oxen rather than a tractor to pull his plow. Busy as he is, he takes time to show us around and to tell us about his farm.

"Like most *habitants*," M. Robert says, "I raise hay, oats, buckwheat, rye, barley, potatoes, and fruit. I have my own cows, chickens, and hogs. We call this *mixed farming*."

"Our farms are usually divided into three sections—the *arable*, the *pasture*, and the *forest*."

"The front section, nearest the St. Lawrence, is the arable land on which we grow our crops. The land of the next section is our pasture. Here the horses and cattle graze. The section farthest



Paul's Photos

These jolly Canadian children have hitched their dogs to carts and are bringing in hay. We see many such scenes on our trip through the province of Quebec.

from the river is covered with trees. As the trees are gradually cut down, the pasture strip extends further inland—unless the *habitants* plant new trees.”

Why is the forest land important to the *habitants*? “When we need lumber to build or repair a house or barn,” M. Robert says, “we go to our forest at the rear of our farms and cut down as many trees as we think we need. We chop the branches off the trunks for use as firewood in our houses and outdoor ovens. Then we take the logs to the sawmill. This is easiest in the winter when the ground is covered with snow, and we can move the logs on sleds. Nearly every town has a small sawmill where the logs are cut into building lumber.”

M. Chapelle points out maple trees in M. Robert's forest. These trees supply the farmers maple sugar for their own use and for sale.

How does the habitant family live? The *habitant* families are large and their recreation is centered around their homes.

Madame (má'dám') Robert says, “In the evenings my eldest daughters and I spin, weave, knit, or sew. The younger

children play together while my husband and the older sons mend harness and repair tools in the kitchen. Then we tell stories or sing. Many of our friends have musical instruments, and we often play together and dance.”

Mme. Robert shows us her spinning wheel and a loom on which she makes homespun cloth. On quiet evenings the women of the house work on hooked rugs and quilts very much as their ancestors did. On such evenings the children study the lessons of the Catholic school they attend. The men read newspapers and magazines or plan the next day's work.

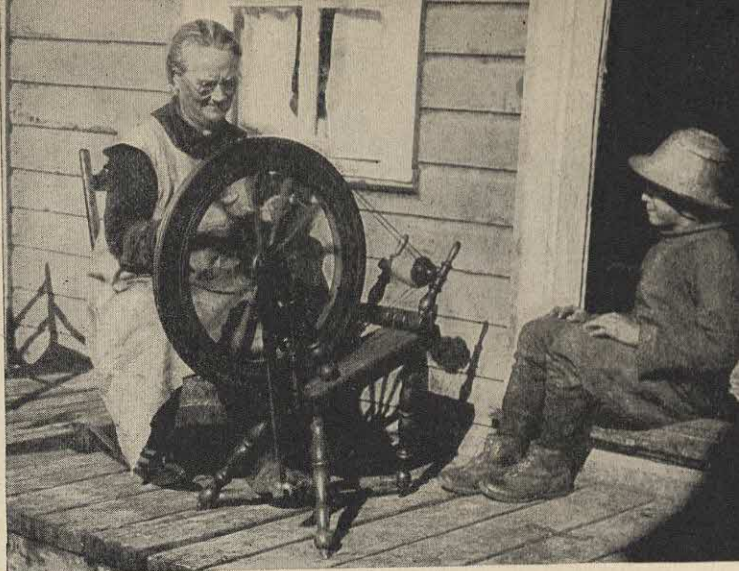
On Sunday all members of the family dress up in their best clothes and drive to the Catholic church. Only serious illness keeps any member of the family from attending religious services.

Going up the St. Lawrence. Farther up the river we board a river boat bound for the city of Montreal. On the *habitant* farms along the banks we see many dairy cattle grazing in the fields.

Our guide points to the region south of the river and says that many Loyalists settled in that part of Quebec. To-

If this young man watches his grandmother long enough, he will learn to spin wool in the same way she learned—by watching her own grandmother do it. In some parts of Quebec, people today spin their thread and weave the cloth for their clothing. Some of their spinning wheels are more than 300 years old, and they still run smoothly.

Courtesy Canadian National Railways



day farmers in that territory close to the border live and work like the farmers of near-by New England and New York.

In that region between the United States and the St. Lawrence many people also make a living in the asbestos industry.

What is asbestos? Our guide explains that it is a *fibrous* mineral found in certain kinds of rock. The asbestos ore is taken to mills in which the fibers are separated from the rock. These fibers are spun into yarn and woven into cloth, or pressed into sheets of felt.

Since asbestos does not burn, it is used in manufacturing firemen's suits and boots, brake linings for automobiles, and many fireproof articles.

Electricity and heat do not pass through asbestos; so this mineral product is also used for insulating electric wires and covering steam boilers, radi-

ators, and steam pipes. Asbestos shingles are used for the roofing of houses.

The United States gets nearly all its supply of this valuable product from the asbestos mines and mills of the province of Quebec.

How do the forests of Quebec provide work for the inhabitants? Each autumn when the cold weather comes and snow begins to fall, thousands of men from the towns and farms go north to the forests to work as lumberjacks. They dress in gaily plaided wool shirts, warm breeches and jackets, and high boots.

The *cruisers*, the men who mark the trees, leave for the forests earlier than the cutters. So do those who build or repair lumber cabins, bunkhouses, kitchens, or clubhouses.

"M-m-m, it smells good," says this little country girl in one of the French districts of Quebec, as her mother opens the outdoor oven and looks at the baking bread. These people still bake bread in ovens like those used by the first settlers who came to the New World from Old France.

Courtesy Canadian National Railways



Soon the stillness of the forest is shattered by the cries of the men, the *chop-chop* of axes, and the boom of falling trees. The giant trees are cut and trimmed and then loaded on huge horse-drawn sleds. All winter the logs are taken from the forest to the banks of the frozen rivers. When the spring thaw comes, the logs are rolled into the rivers and floated downstream. Sometimes the logs become jammed and pile up so high that the only way to get them moving forward again is to blast them loose with dynamite.

M. Chapelle tells us that these workers of the forest stay away from their homes all winter. When the spring comes, those who are farmers or farm workers return to their spring plowing or planting.

Why is the manufacturing of wood pulp and paper the chief industry of the province of Quebec? "The forest area of Quebec," says M. Chapelle, "is greater than your whole state of Texas. Here grow immense stands of spruce and other softwoods that are ideally suited for the making of wood pulp and paper.

"But a country must have more than trees to make paper. Papermaking requires plenty of good clear water and much power. In Quebec our many rivers supply the good water. As no coal is mined in Quebec, the rivers also supply our power through hydroelectric plants. So from our forests and rivers come almost everything needed to make paper."

Quebec produces more wood pulp and paper than any other Canadian province, and it is a leading pulp- and paper-manufacturing center of the world. Since Quebec and other Canadian provinces make more wood pulp and newsprint paper than Canadians can use, much of

these products are exported to all countries of the world. The United States is by far the biggest buyer of Canadian wood pulp and newsprint.

How is paper made? At the paper mill the logs are carried to a giant circular saw which cuts them into short lengths. Other machines take off the bark and cut the logs into small chips or grind them into shreds. Still other machines turn the wood into a soupy mixture of wood fibers and water, called wood pulp.

This wood pulp is beaten and mixed with certain chemicals, and then it passes into a tremendous machine, fifteen to thirty feet wide and half a block long. The watery pulp goes in one end and smooth paper comes out the other. The paper is wound into huge rolls and is soon on board a freighter bound for the United States, Europe, or South America.

What is the forestry service? Because the forests provide work and useful materials for many people, the Canadian government has established a forestry service to protect this valuable natural resource. Workers in the forestry service try to prevent waste of timber from fires, tree diseases, and careless cutting.

Forest rangers are on a continual lookout for fires, and they direct volunteers in fighting this menace of the woods. Scientists work to keep tree diseases from spreading through the forests. Forest rangers see that only the largest trees are cut by the lumberjacks. The Canadian government also makes sure that cut-over areas are replanted. We decide that this is a very wise *conservation* program. Canada's forests will always be a source of wealth for its people.



GUARDIANS OF THE FOREST

The forests of Canada are one of the country's most valuable resources. Great care must be taken to protect these forests from destruction by fire. From lookout towers on the tops of high hills and mountains, observers with field glasses and fire finders spot fires almost as soon as they start. By telephone they report the location so that forest rangers from far and near can rush fire-fighting equipment to the scene before the fire gets out of control.

Photograph courtesy The Texas Company



1. Logs from the Forest



2. The Millpond

A PICTURE STORY OF PAPER

The forests of Canada supply logs for the manufacture of wood pulp. When the logs arrive at the millpond, long conveyors are used to pile them in high stacks beside the pulp mill.

Inside the mill the logs are cut into tiny chips. The chips are soaked in water and cooked. This removes impurities and separates the fibers. The solution is then put in flat tanks and beaten until it is as smooth as cream.

As the wood pulp leaves the beater, it flows on to a screen in the form of an endless belt. The water drains through the screen, and the belt carries the pulp between heated rollers. These rollers squeeze out the last drops of water and convert the pulp into dry paper. The paper is then wound on rolls for shipment.

Different kinds of paper require different operations. For example, there is a vast difference between the materials, time, and effort required to make newsprint and those which go into a fine, high-quality paper.

Courtesy S. D. Warren Co., Western Pine Association, and U. S. Forest Service

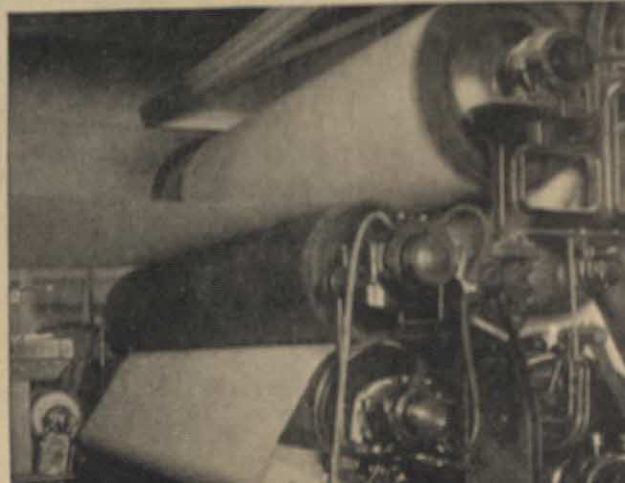


3. The Woodyard

4. Beating the Pulp



5. Making the Paper





Courtesy Canadian Pacific

How did the St. Lawrence River, which we see here from the top of Mount Royal, help Montreal become a modern city, the largest in all Canada?

MONTREAL, THE BIGGEST CITY IN CANADA

We have come over 175 miles up the river from the city of Quebec. For some time we have been at the bow of our boat watching other ships. A speedy ocean liner overtakes us in its hurry to dock at Montreal. A column of grain ships goes by, headed for the Atlantic.

In front of us we see a hill that seems to rise steeply out of the St. Lawrence. We please M. Chapelle by telling him that this is the hill that the explorer Cartier first saw many years ago and named *Mont Real*, or Mount Royal. Slowly our boat approaches one of the long piers extending into the river.

We hire *calèches* to go to the lookout on top of Mount Royal. No automobiles are permitted to go that far. Some of the most beautiful homes in the city are terraced into the sides of the hill.

We find that the street signs in Montreal are written in both French and English. M. Chapelle tells us that the radio broadcasts are made in both languages. Two-thirds of the inhabitants of Mont-

real are French Canadians. Next to Paris, Montreal is the largest French-speaking city in the world. We pass two universities—*Montreal*, a French institution, and *McGill*, an English school.

Why is Montreal the largest Canadian city? M. Chapelle informs us that Montreal is a great inland seaport. Ocean liners come almost a thousand miles up the St. Lawrence to the great docks of Montreal. It is the farthest inland of all world seaports. Which of the two ports, Montreal and New York, is closer to Liverpool, England?

Large ocean-going ships cannot go up the St. Lawrence beyond Montreal because of the rapids and shallow waters between Montreal and Lake Ontario. Some people in the United States and Canada are hoping that a deep waterway will be built around the rapids and through the shallows so that large ocean-going vessels may reach the Great Lakes.

Montreal is also a great railroad and trucking center. Railroads bring ores,

lumber, meat, and grain from western and northern Canada to Montreal for shipment overseas. Many products of the North Central States and Great Plains region of the United States are also sent by rail to Montreal for transshipment to Europe.

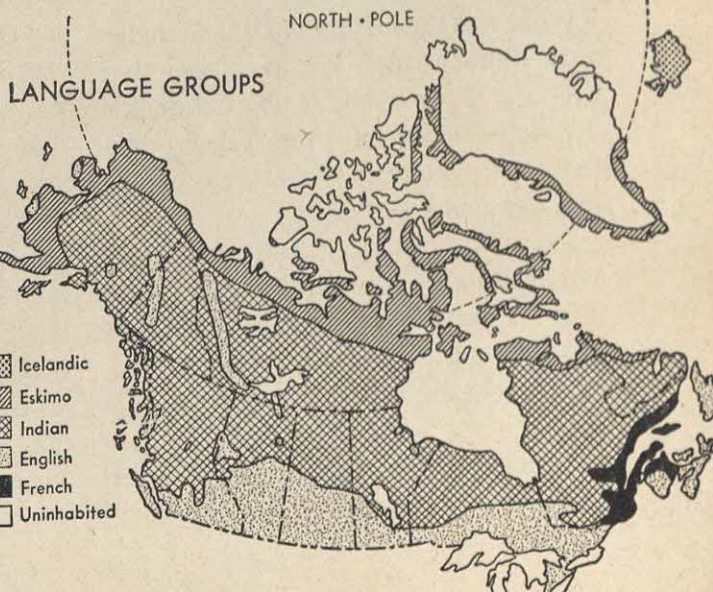
The great flow of trade is the main reason why Montreal is the largest city in Canada with nearly 1,000,000 inhabitants. What city has become the largest in the Maritime Provinces because it is a great seaport? What advantage does that port have over the port of Montreal? What is its disadvantage?

From the lookout we see trees and church spires reaching up from the city. Tall stacks rise above the flat land near the river. Our guide says that Montreal has more than 2,500 industrial plants, which produce over 150 different kinds of manufactured goods. He points out the flour mills, which are the largest in Canada, the stockyards, meat-packing plants, paper and textile mills, and factories for making clothing and shoes, locomotives, and railroad cars. We learn that many Canadian branches of American industries are located in Montreal.

What do we want to remember about the province of Quebec? Later, at the bus station, we say goodbye to M. Chappelle and board a bus for Ontario. As we look out at the green and rolling countryside of southwestern Quebec, we recall what we have learned about this large French-Canadian province.

It was first explored by the Frenchman, Cartier. It was first settled by the Frenchman, Champlain. These early French settlements were along the St. Lawrence, the "main street of Canada." To this day the people cling to their heritage of French customs and way of life. England took over the control of Canada by winning the French and Indian War. The turning point in this war was the capture of Quebec by the English under General Wolfe.

Today, Quebec's rivers are important as highways and as sources of hydroelectric power. Quebec is a leading producer of wood pulp and paper and asbestos. The city of Quebec is her capital. Montreal is an important world seaport, the second largest French-speaking city in the world, and the largest city in Canada.



From this map we can see that almost all of Canada's French live in the province of Quebec. Notice the large area covered by Indian language groups. We must remember, however, that many of the Indians also speak English, and of course the traders in that area are English-speaking. Which language do you think is spoken by the largest number of people?

CANADA'S GOVERNMENT

Our bus leaves the province of Quebec as we cross the beautiful, winding Ottawa River. Soon we are walking about in the city of Ottawa in the province of Ontario. We realize that we are again in an English-speaking Canadian city. The signs we see and the talk we hear remind us of home.

We walk up Parliament Hill, a bluff that overlooks the Ottawa River. Royal Canadian Mounted Police in bright red coats and broad-brimmed hats are standing guard at the entrances to cathedral-like government buildings that tower over this beautifully landscaped hill: On these grounds we meet a Canadian named Mr. Adams, who will be our guide through the province of Ontario.

Why is Ottawa an important Canadian city? Ottawa is the capital of Canada. Just as in our own capital at Washington, the most important activity in Ottawa is the work connected with the government of the nation.

"Before you begin to study the government of Canada," says Mr. Adams, "you should know more about Canadian history."

What was the history of Canada under early English rule? We have seen that after the French and Indian War the victorious English gave the French Canadians the right to preserve their French language and way of life.

Gradually Canada grew. After the American Revolutionary War many Loyalists migrated to Canada from the United States. Later thousands of immigrants from the British Isles poured into Canada.

During all this time England ruled

Canada as a colony. The people of Canada did not have as much power as the officials appointed by the King of England. The Canadians did not like this. Several times rebellions broke out against the governors appointed by the King. Finally, the English sent investigators to Canada to see what should be done. The investigators reported to the British Parliament that the Canadians were determined to have more control of their own affairs, and that the demands of the Canadians were reasonable and fair.

When was the Dominion of Canada founded? At last the British Parliament passed a bill giving the Canadians more self-government. On July 1, 1867, what are now the four provinces of Ontario, Quebec, New Brunswick, and Nova Scotia were united to form the *Dominion of Canada*. Ottawa was chosen as the capital. Each of the provinces kept its provincial government just as each state in the United States has its government.

From time to time more provinces were created and admitted to the Dominion of Canada, just as new states were added to the original thirteen states of our country. "Now," adds Mr. Adams, "the First of July is our national holiday. We call it *Dominion Day*."

In the years that followed, the government at Ottawa took over from England more and more control of its affairs at home. These included such matters as taxes, immigration, railroads, and public lands. The British government, however, continued to regulate Canada's relations with other countries. Canada did not send ambassadors to other countries, for instance. Trade agreements between

The Canadian legislature meets and makes laws in these buildings at Ottawa. This scene looks like a bit of Old England, doesn't it?

Courtesy Canadian Government

Canada and the United States were supervised by England.

But as Canada grew, her trade relations with other countries became more important. Canada's grain was being shipped to many countries of Europe. She was importing millions of dollars worth of goods from the United States and other industrial nations. The Canadians gradually began to take an increasing part in these dealings with other countries. Finally, in 1931, Canada became a self-governing nation in the *British Commonwealth of Nations*. Now the Dominion government at Ottawa controls Canada's foreign and domestic affairs.

How is Canada governed? Our guide tells us that the law-making body is a two-house legislature. The Canadian *House of Commons* is very much like the House of Representatives in the United States. The members are elected from districts in each province. But the ninety-six senators are appointed for life. How does this differ from the way senators in the United States are chosen?

The head of the Canadian government is the *prime minister*. He is the leader of the party that received the most votes at the last election. He chooses a cabinet to work with him. The premier and the members of his cabinet are members of the legislature also.

The honorary head of the Canadian government is the *governor general*. In early Canadian history the governors appointed by the British king had much authority. Sometimes they would refuse



to sign laws passed by the legislature, and these laws could not go into effect. Now, however, the governor general has little power. He never fails to sign the laws passed by the lawmakers in Ottawa.

The office of governor general still exists to show that Canada is a member of the British family of nations. The office is held for five years by an honored Englishman who comes to Ottawa as the official representative of the King.

We find it very difficult to understand the place of the British king in the hearts and minds of the people of Canada. But from the talk we have had with Mr. Adams, we know that Canadians are devoted to the king. This devotion to the king and the close association the Canadians have long had with the British help to hold the two countries together.

They are also held together by their trade. Great Britain buys more of the products of Canada's farms and fisheries than any other country.



Most of the farms, most of the factories, and most of the people of Quebec and Ontario are in the southern part of these provinces close to the rivers. Numerous parks have been set aside in the north for resort centers and forest preserves.

ONTARIO—THE HEART OF INDUSTRIAL CANADA

Who were the early settlers of Ontario? Our guide tells us that some of the early pioneers of Ontario were Loyalists from the United States. We remember that after the Revolutionary War these people remained loyal to England and left the United States. Thousands of them began their lives anew in the wilderness of Ontario. Ontario in those days was a frontier land like Kentucky in the days of Daniel Boone.

More settlers came from the British Isles. Later, Scandinavians, Germans, and other people came to work in the cities and on the farms. They were very much like the immigrants who helped to build the United States.

Today Ontario, which is second to Quebec in size, is the richest and most densely populated province.

How large is the province of Ontario? We notice that Ontario is almost 1,000 miles across at its widest point. It stretches from as far east as New Jersey to as far west as Kansas. Its southernmost point is south of Detroit, Michigan,

and the province stretches almost 900 miles north to Hudson Bay.

How have the land features affected the development of Ontario? Mr. Adams reminds us that Quebec could be divided into two regions, southern and northern. The same is true of Ontario. Ontario's southern region is a small peninsula, shaped like a giant finger pointing straight at the heart of the United States. What lakes help make this a peninsula?

The southern region of fertile land is suitable for agriculture. In addition, many manufacturing cities have developed in this region. The peninsula is only one-tenth of the land area of Ontario, but nine-tenths of the province's four million people live and work there.

The northern region is a vast wilderness that stretches north of Lake Superior and Lake Huron to Hudson Bay. Most of this northern region is part of the Canadian Shield. The heavily wooded, rocky soil of northern Ontario is a region in which mining, lumbering, and fur trapping flourish.

HOW THE PEOPLE OF SOUTHERN ONTARIO MAKE A LIVING

What kind of farming is done in southern Ontario? As we drive towards Toronto we see many farms on both sides of the road. Mr. Adams tells us that the farmers in this area grow many different kinds of crops. This is the same kind of mixed farming we saw in Quebec. The farmers of Ontario raise wheat and corn, hay, flax, peas, and potatoes. The herds of cows we see grazing in the meadows indicate that dairy farming is important here.

Our guide tells us that the Great Lakes region of Ontario is also one of the finest fruit-growing areas in the world.

Why is fruit farming so successful in southern Ontario? Mr. Adams remarks that the part of Ontario near the Great Lakes has rich black soil. But besides this good earth, a suitable climate is needed for fruit farming. Mr. Adams asks us to notice on our maps how the southern portion of Ontario is almost surrounded by Lakes Ontario, Erie, and Huron.

In the spring, the Great Lakes remain cool longer than the land. The winds blowing across the lakes keep southern Ontario cool, and this prevents the fruit trees from budding and blossoming before the freezes and snows of winter are over. In the fall the lakes lose their heat more slowly than the land. The warmth in the winds blowing across the lakes prevents the fruit from freezing before it can be harvested. Much of this fruit is

exported to Europe and the other countries of America.

Why is Toronto Canada's second largest city? While driving through the outlying factory districts of Toronto, we learn that "Toronto" is an Indian word meaning "the place of meeting." The city has been called by that name since the days of the fur traders. Here the Indians brought furs from the interior and traded them for tools, firearms, and other manufactured goods. In the present days of trade, the city of Toronto is a modern meeting point for highways, waterways, railways, and skyways. It is sometimes called the "Chicago of Canada." Do you know why?

Because large ocean-going vessels cannot yet come up the St. Lawrence River and over Lake Ontario to Toronto, it is not a world trade port like Montreal, Quebec, and Halifax. But it is a very important lake shipping port. Much of the trade across the Great Lakes between Canada and the United States is centered at Toronto.

A peach orchard in harvest time sounds like a good place to be, doesn't it? But there is work to be done before the eating begins.

Courtesy Canadian Government



We stop at the railroad yards and see bushels and crates of fruit awaiting shipment. We realize that Toronto is the shipping point of the rich fruit belt of the Great Lakes region. Down by the waterfront huge grain elevators rise straight up from the shore. Later, we drive by the big stockyards and meat-packing plants, the largest east of Chicago. Some of the meat packed here will be shipped to England.

Our guide tells us that Toronto is one of Canada's great manufacturing cities. Over 3,000 industrial plants are located here, more than in the larger city of Montreal.

In the industrial sections of the city, we see busy mills and factories where copper and other minerals from the Canadian Shield are made into electrical equipment and machinery. We pass paper mills and clothing factories. Electricity to run these factories comes from the Niagara Falls power plants.

"But Toronto and other manufacturing cities of Ontario use coal as well as hydroelectric power," Mr. Adams says. "This is true even though the only coal mines in Canada are in the eastern and western provinces, and shipping this coal to Ontario is expensive. Instead of using this distant coal Ontario imports coal from Pennsylvania and Ohio just across the Great Lakes. Iron ore is imported from Minnesota, and there are many mills which manufacture iron and steel products in Toronto and other cities in southern Ontario."

After what we have seen, we are not surprised when Mr. Adams says that Ontario is the leading manufacturing province of Canada.

On our way out of the city, we pass the Parliament buildings, which tell us that Toronto is the capital of Ontario.

Later we see a familiar sight—a baseball park. Our guide tells us that Toronto is one of the Canadian cities that has a team in the International League, composed of American and Canadian baseball teams. Toronto is the home of the Toronto Maple Leafs, a hockey team playing in a league also consisting of American and Canadian teams. The people of both countries have become fond of each other's sports.

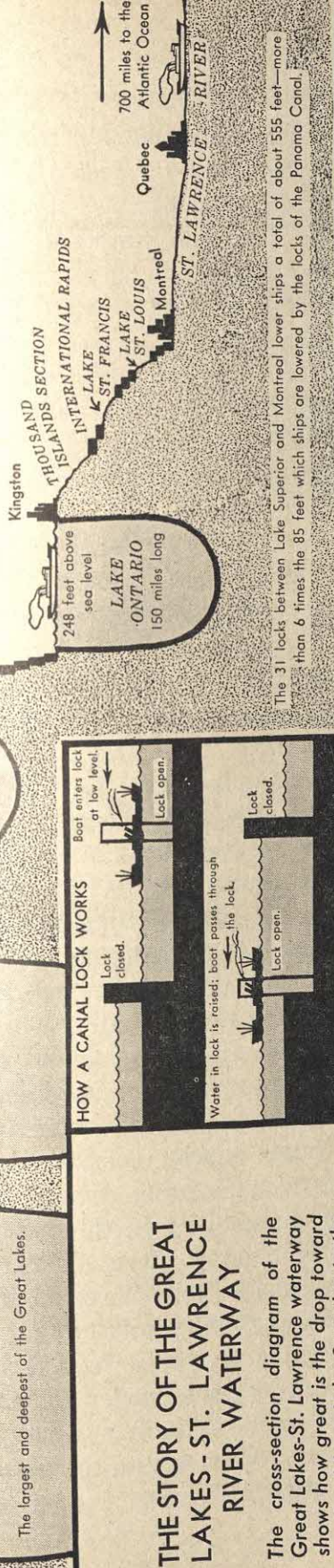
What is the value of Niagara Falls? As we drive along the northwestern shore of Lake Ontario towards Niagara Falls, our guide tells us that "Niagara" is an Indian word which means "thundering water." When we look at our maps, we find that the Niagara River connects Lake Erie with Lake Ontario. Mr. Adams says that four of the Great Lakes—Huron, Erie, Michigan, and Superior—are much higher than the fifth—Lake Ontario.

The Niagara River is the only natural outlet draining the four higher lakes. Almost in the middle of this river, between Lake Erie and Lake Ontario, are the Niagara Falls.

We all know that thousands of tourists come to Niagara Falls each year to see and hear the roaring rush of the falling waters. But the great value of the falls is in the electric power that is generated from some of its falling water. This electricity goes to many industrial centers in Canada and the United States, even as far as New York City. The generating station on the Canadian side is the third largest water-power plant in Canada.

THE GREAT LAKES AND ST. LAWRENCE RIVER SYSTEM
 This system of lakes, rivers, and canals, extending about 2,200 miles from Duluth, Minnesota, to the Atlantic Ocean is the world's greatest inland waterway.

A CROSS-SECTION DIAGRAM



THE STORY OF THE GREAT LAKES-ST. LAWRENCE RIVER WATERWAY

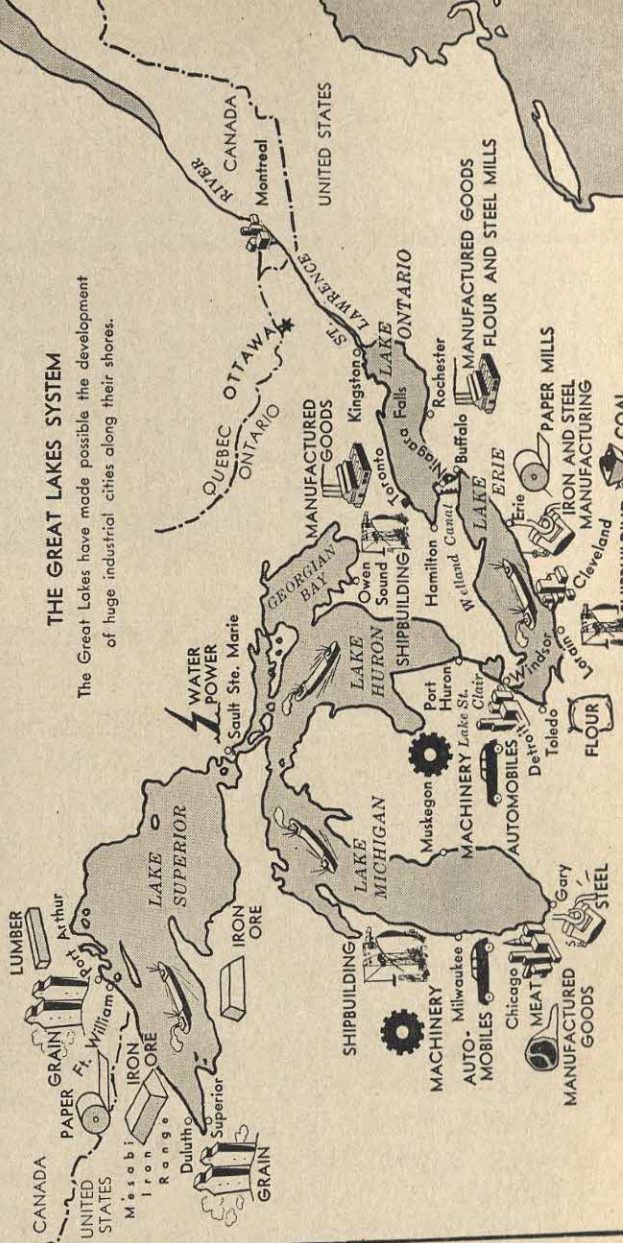
The cross-section diagram of the Great Lakes-St. Lawrence waterway shows how great is the drop toward sea level from Lake Superior to the mouth of the St. Lawrence. Most of the drop—322 feet—occurs between Lake Erie and Lake Ontario. Here the Welland Canal's eight locks raise or lower ships. There are other locks in canals around rapids in the St. Lawrence River.

Canal locks are operated in a simple manner. The boat first enters a lock, the gate of the lock is shut, and water flows into the lock, thus lifting the boat to the water level of the next lock. With boats going in the opposite direction, the procedure is reversed.

The Great Lakes system is the scene of much activity. Iron ore from the rich ranges of the Lake Superior region is brought to industrial cities along the shores of the lakes, where it is smelted into iron—much of which is made into steel. On their return trips, the huge, specially built ore boats carry coal.

THE GREAT LAKES SYSTEM

The Great Lakes have made possible the development of huge industrial cities along their shores.



What is the Great Lakes-St. Lawrence Waterway? We have driven but a few miles west of Niagara Falls when suddenly, right in the middle of a cornfield before us, we see a moving ship. We couldn't have been more surprised if we had seen a railroad train in the middle of the ocean. We drive closer to the ship and then realize that it is steaming along in a high-banked canal that at first had been hidden from us. It is the Welland Canal, Mr. Adams tells us.

"Lake freighters passing from Lake Erie to Lake Ontario must go around Niagara Falls. So they go by way of the 27-mile Welland Ship Canal.

"As you can see, it is wide enough for two of the largest lake freighters to pass each other. That ship you see may be carrying as much as half a million bushels of wheat. On the way from Lake Erie to Lake Ontario it will be lowered about 300 feet while passing through eight locks.

"Freighters plying between Montreal and ports on Lake Superior use seven other canals besides the Welland Canal. Six are detours around rapids in the St. Lawrence River. The seventh is the Soo Canal between Lake Huron and Lake Superior."

In recent years the governments of the United States and Canada have discussed improving the Great Lakes-St. Lawrence River Waterway so that ocean liners can proceed all the way to the Great Lakes ports. The Welland Canal is large enough for ocean-going vessels, but other canals will have to be enlarged and the St. Lawrence River deepened in places. If this is accomplished, the Great Lakes ports of the United States and southern Ontario will become world seaports.

Why is the southern tip of Ontario a very important manufacturing center? For many years the region around Detroit, Michigan, has been the center of automobile manufacturing in the United States. But these automobiles, manufactured in the United States, could not be shipped into Canada without the payment of a high tax. So American automobile concerns built factories right across the Detroit River on the Canadian side and manufactured cars there for the Canadian market.

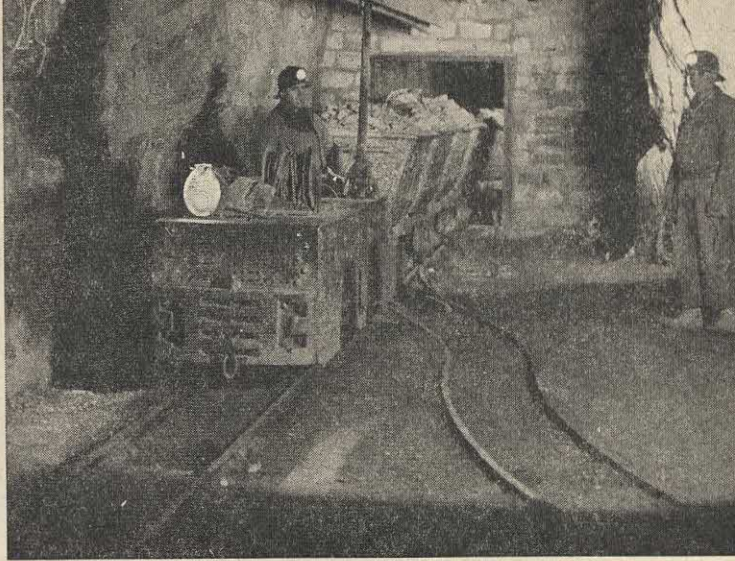
Before long other American manufacturers who wished to sell their goods in Canada built plants across from Detroit. Today there are over 1,000 branches of American factories in Ontario and a great many of them are in this area across from Detroit. The leading product in value is automobiles.

As we drive past the great sprawling factories of this area, Mr. Adams tells us that there is one other important reason for the growth of the southern peninsula as a manufacturing center. This peninsula is close to the coal, iron, and steel of the United States. These products, which are so essential to manufacturing, are shipped cheaply across the Great Lakes. Therefore, the resources of the United States become a part of Ontario's manufacturing environment.

The largest city in this part of Ontario is Windsor. It is almost directly across from Detroit. We could drive over to our own country in just a few minutes, going either by bridge over the Detroit River or by tunnel under it. Instead we board a plane at the Windsor airport and are soon on our way to the northern region of Ontario.

Gold mining isn't as romantic an occupation as it once was. No longer do lone prospectors pan a few ounces of "dust" a day. This mine is in Ontario.

Courtesy Canadian Government



THE RICHES OF NORTHERN ONTARIO

As our plane approaches Sudbury, north of Lake Huron, we see yellow smoke pouring out of the giant stacks of the smelters near the city. Soon we even catch the faint smell of sulphur. Then a passenger tells us that the sulphur fumes come from the smelting of nickel and copper ore. These fumes keep grass, trees, and other kinds of vegetation from growing around Sudbury.

What minerals make Ontario the most important mining province in Canada? Our passenger friend goes on to tell us that the mines at Sudbury supply over four-fifths of the world's nickel. This is a very hard, tough metal that combines well with other metals to make strong, rust-resistant *alloys*. For instance, the protective plating on battleships contains steel, nickel, and other metals. Our coin, the nickel, is an alloy of one-quarter nickel and three-quarters copper. The parts of machines that receive very hard wear are often made of nickel alloys.

While nickel is probably the most useful mineral mined in Ontario, there is another mineral mined in the province

that has even greater money value. That mineral is gold. Other valuable minerals are also being discovered in the shield area of Canada, and so far the discoveries in Ontario lead all the rest. Copper, lead, and zinc are plentiful. More and more platinum is being mined. Silver nuggets as big as a bushel basket have been found.

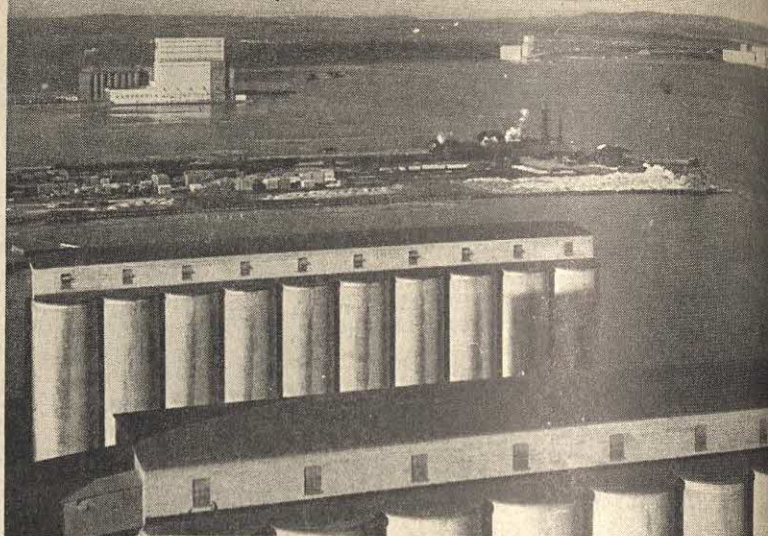
What other important resources are found in northern Ontario? As our plane leaves Sudbury and flies westward, we pass over mile after mile of dark green forests. Now and then we see the belching stack of a sawmill and the piles of fresh-cut lumber close by. On a rushing, white-water river we make out the long shed of a paper mill. In paper and pulp production only Quebec leads Ontario.

These same forests are of value in another way. They are still being worked by fur trappers as they were in the earliest days of Canadian history. Now Ontario ranks first in the value of the furs taken in the forests of Canada.

Our plane roars on, stopping for passengers at Sault Ste. Marie (sōō' sânt mǎ-rē'), where the famous Soo Canals

Because much of the grain grown on the prairies of Canada and the United States is shipped through the Great Lakes Waterway, the twin cities of Port Arthur and Fort William together are the greatest grain-shipping center in the world. Notice the huge grain elevators scattered around the edge of the harbor at Port Arthur. The railroads run right to the ends of the piers to make loading easier.

*Canadian Government
Information Service*



are located. All shipping from Lake Superior must pass through the Soo Canals to reach the other Great Lakes. More tons of cargo pass through the Soo Canals than pass through the Panama, Suez, and Welland Canals combined.

About two hours after leaving the Soo, we circle the twin cities of Port Arthur and Fort William. Never before have we seen such tremendous grain elevators. Our assistant pilot tells us the reason for their size. To the west of us is one of the most important wheat-raising districts in the world. This wheat could be shipped to the eastern cities or ocean ports by rail. But we know that water transportation is cheaper. So railroads carry the wheat from the Prairie Provinces to the nearest ports on the Great Lakes, which are the twin cities. All during the winter when the lakes are frozen solid, thousands of freight cars bring the tremendous harvest into Port Arthur and Fort William. The wheat is stored, therefore, in the huge grain elevators we see. Then in the spring when the lakes reopen, the elevators disgorge their golden grain into the holds of ships which carry it to the cities in the east and in the world beyond.

What are some of the things that we have learned about Ontario? In Port Arthur we take a train for the Prairie Provinces of Canada. As we ride through sparsely settled western Ontario, we remember that more Canadians live in this province than any other. Loyalists from the United States founded it, and immigrants from the British Isles and other European countries helped to make it grow. Today Ontario is an English-speaking province.

The capital of the Dominion of Canada, Ottawa, is in Ontario. We have learned that Canada is a self-governing member of the British family of nations. The lawmakers are elected by the people, so Canada is a democratic country.

Ontario may be divided into two main sections. In the southern section are: (1) the most people, (2) the biggest cities, including Toronto, the capital, (3) the best farms and orchards, (4) most of the manufacturing.

In the northern section are (1) the mines, (2) the forests, (3) the fur-trapping areas.

Ontario leads all the provinces in the value of her manufactures, farm products, mineral products, and forest furs.

YOUR ACTIVITY PROGRAM

In this unit you have learned about two provinces of Canada which are quite different from each other. Perhaps you will be interested in trying to discover new activities of your own to help you to learn about these provinces.

Solving the Problems

A. *Recognizing the Problems.*

1. Write down in your notebook all the problems presented in this unit. How many are there?
2. How many of the problems are concerned with life in cities? Put a C before these problems.
3. How many of the problems are concerned with life on farms or in very small towns? Put an F before these problems. Are there more C's or F's?

B. *Gaining the Understandings.*

1. Answer as many of these questions as you can without turning back in your book.
 - Why is the mouth of the St. Lawrence River so wide?
 - Why were there stockades around the early French farmhouses?
 - What is another name for the St. Lawrence River?
 - Why did every French colonist want land along the St. Lawrence?
 - What area in the United States can be compared in size with the province of Quebec?
 - What are some of the things to be seen in Upper Town in Quebec?
 - For what reason are the Plains of Abraham famous?
 - Who won the Battle of Quebec?
 - What is Lower Town in Quebec like?
 - What sort of farming is done by the *habitants*?
 - In what ways is the forest land useful to the *habitants*?
 - What is asbestos used for?
 - How is paper made?
 - Why is the forestry service important?
 - What is the largest city of Canada?
 - Why has Montreal become so important?

What is the importance of Ottawa to the rest of Canada?

Why is July 1st a holiday in Canada?

What are the present duties of the governor general?

Who were some of the early settlers in Ontario?

How does the land of northern Ontario differ from that of southern Ontario?

What things help to make southern Ontario a good fruit-growing region?

What has helped to make Toronto an important city?

Who are the Maple Leafs?

What is produced at Niagara Falls?

Why is the Welland Canal important?

What is the chief product manufactured by American companies in the southern tip of Ontario?

What is the largest city of this part of Ontario?

What is the important mineral which northern Ontario furnishes for most of the world?

What other minerals are found in northern Ontario?

Where is the Soo Canal?

What product is shipped in large amounts from Port Arthur and Fort William?

2. Be able to explain the following words:

Drowned North Atlantic Coast	<i>habitant</i>
<i>calèche</i>	asbestos
mixed farming	Mont Real
cruisers	Toronto
premier	alloy
Niagara	conservation
fibrous	

3. In your notebook write a sentence or short paragraph in answer to each of the problems in the unit. Do you have these "understandings" well in mind?

Enriching the Understandings

1. Look in reference books to find out more about the Drowned North Atlantic Coast. See what other effects the sinking had besides widen-

ing the mouth of the St. Lawrence. You might give a report in class about your discoveries.

2. Read some books about the early settlers of this part of Canada.

3. Dramatize the story of Madeleine, or draw a picture frieze of it on a long piece of wrapping paper. Use another story from Canadian history if you would prefer.

4. Draw a picture map of an *habitant* farm.

5. Try to obtain a French-Canadian newspaper, and, if you wish, translate a few headlines with the help of a French-English dictionary. Does the newspaper have comics and advertisements similar to those in newspapers of the United States?

6. Collect pictures of interesting spots in and around the city of Quebec.

7. Make a display of various articles made of asbestos.

8. Do some research on the life of a lumberjack and give a report on it in class—the kind of work he does, the clothes he wears, the food he eats, what he does in his spare time, etc.

9. Consider the advantages of visiting Quebec or Montreal and decide which would be most interesting. You might have a class debate on the subject.

10. Draw a map of the land around Toronto, showing the various means of transportation which lead to the city.

11. Look up the history of ice hockey and give a class report on it.

12. Collect pictures of Niagara Falls for your bulletin board.

13. Plan a trip from Duluth, Minnesota, through the Great Lakes to the mouth of the St. Lawrence. You might collect pictures of the things you will stop to see as you travel.

14. Make a display of samples of minerals found in northern Ontario.

15. Try to make some paper, following these instructions: Tear old paper into small pieces, preferably using newspapers, paper towels, etc. Put the pieces in a pan of hot water and beat the mixture to a thin pulp with an egg beater. Then take a small piece of window screen and

dip it into the mixture, bringing it out so that there is a layer of pulp on top of it. Gently shake it to even the pulp and to remove some of the water. Then turn it over on a piece of cloth, as thick as possible. Remove the screen and place another piece of cloth on top of the pulp. Squeeze as much water as you can out of the pulp, keeping it flat. Then iron on both sides with a hot iron until it is dry. Remove the two pieces of cloth, and the paper is finished.

Applying Your Knowledge

Write a short paper about the relations of Canada and the United States. Discuss what each may contribute to the other and how they may keep on good terms with each other.

Forming Opinions and Attitudes

Do some reading and thinking on these questions before you make up your mind about them. Perhaps you would like to have some class discussion about them.

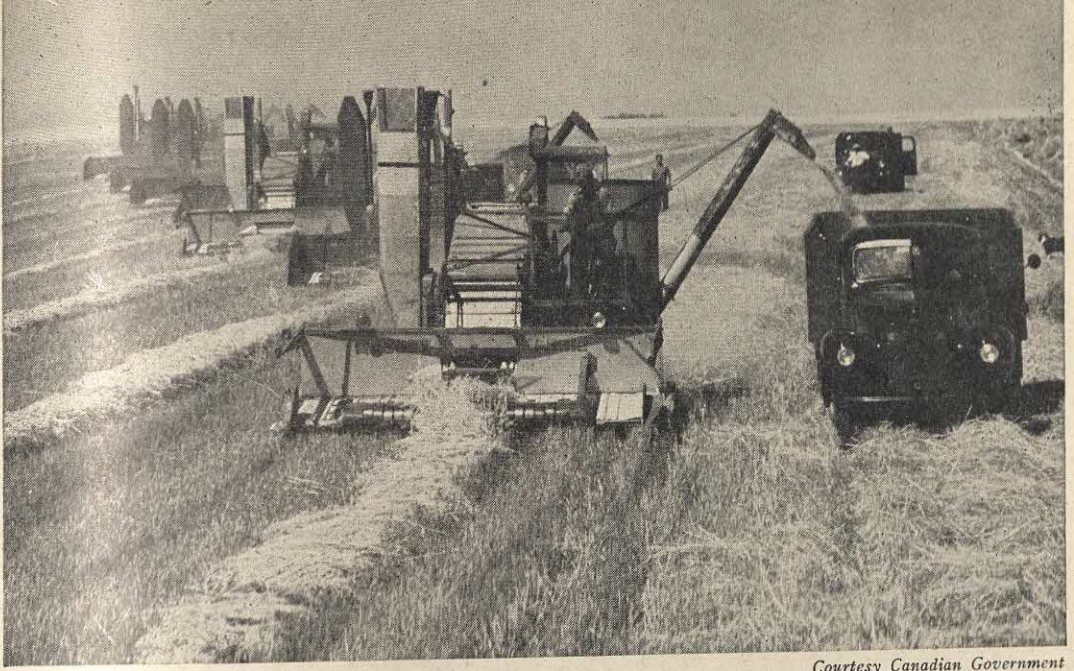
1. Should Canada continue to have two official languages? Consider the trouble and expense of printing laws in both languages, for example, and of maintaining schools in both English and French. How would the French Canadians feel toward the other Canadians if they were forced to learn English?

2. Do you feel that Canada has as democratic a government as the United States?

3. What difference is there in your attitudes toward the French-speaking and English-speaking peoples of Canada?

4. You read in this unit that it would be possible to build a deep waterway up the St. Lawrence so that large ocean-going ships could go as far as Duluth, Minnesota. Many people in New York, Boston, Halifax, and other Atlantic ports have opposed this waterway. Why is this so? What do you think about it?

5. Is it right for companies from the United States to build factories in Canada to escape the Canadian tax on imported goods? If you were a Canadian how would you feel about this?



Courtesy Canadian Government

This wheat field seems to go on forever, doesn't it? The wheat belt of the Prairie Provinces looks like this at harvest time. The cut wheat is picked up and threshed by the machines before the grain is dumped into the trucks. This grain will help furnish food to people throughout the world.

14. *The Prairie Provinces*

While our train is passing through the Lake of the Woods area in southwestern Ontario, we meet a young farm boy named Bob Johnson. We learn that he is returning home from a vacation with relatives in eastern Canada.

Bob says, "The provinces you will visit soon are quite different from the parts of Canada you have already seen."

He tells us that he has lived all his life in one of these provinces, and that his grandfather came to this part of Canada from the United States. We are very much interested in his story of life on the Canadian prairie.

Why are they called the Prairie Provinces? Bob explains that when the first farmers came to this region they found a flat, treeless grassland—a vast prairie stretching westward almost 700 miles to

the foothills of the Rockies. It is no wonder that when the provinces of Manitoba, Saskatchewan (sās·käch'ê·wōn), and Alberta were formed, they came to be known as the *Prairie Provinces*.

What is the size and population of the Prairie Provinces? Each of the three provinces is about 400 miles from east to west, and they all extend nearly 800 miles north from the boundary of the United States. Alberta is the fourth largest province in Canada. Saskatchewan and Manitoba rank fifth and sixth. Each one is just a little smaller than Texas.

Each of these provinces has less than a million inhabitants, or less than the population of the city of Montreal.

Bob adds, "Just as in Quebec and Ontario, most of the people in the Prairie Provinces live in the south where the

land is fertile and the climate suitable for agriculture. But our farms are much larger than the farms you saw back east. With tractors and combines a family can farm a big area on the flat, stone-free land of the Prairie Provinces. Therefore we have fewer people on the prairies than there are on the farming lands of the 'populous provinces.'"

There is another reason for the great difference in *density* of population. Southern Quebec and Ontario have many cities where thousands of people make a living in the mills and the factories. In the Prairie Provinces there are very few cities with factories and mills. The prairie cities are trading and shipping centers for the farmers.

THE STORY OF A FARM FAMILY OF A PRAIRIE PROVINCE

In the second year of this century, a young American farm lad named Olaf Johnson went to Minneapolis on an errand for his father, a Minnesota farmer. In Minneapolis Olaf learned that the Canadian government was selling land very cheaply. A Canadian representative told the young American that millions of acres of wonderfully fertile land lay west of Ontario Province.

Olaf's parents were sorry when their son announced his decision to go to western Canada. Olaf was a devoted son and a fine worker on the farm. But they knew that Olaf longed for a farm of his own, and good farm land in the United States was becoming expensive.

The move to Canada was Olaf's opportunity to acquire his own land, just as his grandparents had obtained theirs by moving to Minneapolis from Sweden years before.

When Olaf left home his father gave him a light spring wagon, a horse, a plow, tools, bedding, a side of bacon, and a sack of flour. Olaf said good-by and went by train north to Winnipeg.

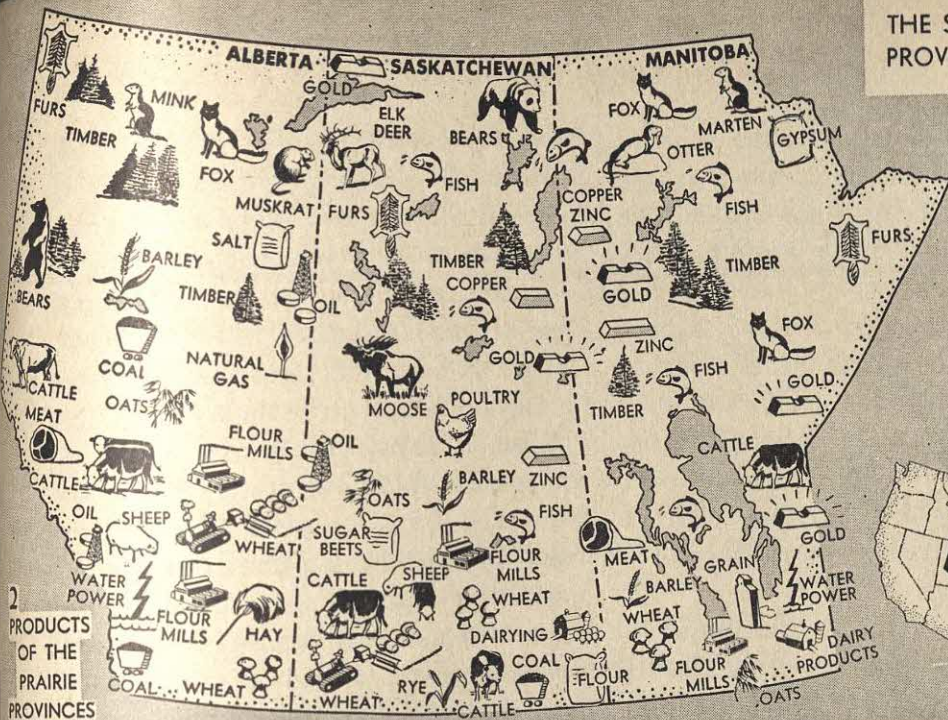
Busy, crowded Winnipeg was the starting point for the long trip across the prairies to the lands newly opened for settlement by the government. By boat,

train, and wagon homesteaders poured into Winnipeg. Here they purchased food, tools, and other supplies. Olaf met young men and old from the United States. He saw *habitants* and other eastern Canadian farmers drawn by the promise of bigger and better farms than those they had left behind.

Many European immigrants milled about the streets and stores of Winnipeg—some alone and silent, others in groups excitedly conversing in their native languages. Olaf overheard Swedish and German words which reminded him of his relatives and friends in Minnesota. He heard other languages—Russian, Italian, Hungarian—which he did not understand. Some of the men were accompanied by their wives and children, whose faces mirrored a hope for a better life on their own land.

Olaf bought a few more supplies in Winnipeg. Then he loaded his horse and wagon aboard a Canadian Pacific freight train. Once aboard, Olaf thought of how this railroad was helping to open up western Canada. The trains took many farmers to the land, though some, he could see from his boxcar, were going to their new homes by oxcart! The trains also carried the harvests to eastern mar-

THE STORY OF THE PRAIRIE PROVINCES TOLD BY MAPS



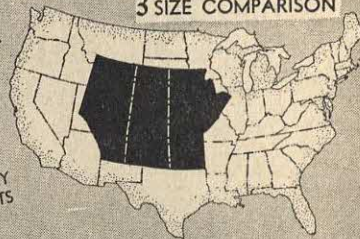
1 SPRING-WHEAT REGION

The wheat is planted in the spring and harvested in the late summer or fall



Map courtesy U. S. Dept. of Agriculture

3 SIZE COMPARISON



1. **SPRING-WHEAT REGION.** The spring-wheat belt extends from the Prairie Provinces into the states of Montana and North Dakota. One-seventh of the world's wheat supply is grown in this belt.
2. **PRODUCTS.** The products of the Prairie Provinces are largely agricultural. Wheat is by far the most valuable in each province. Its value is more than twice that of the next product.
3. **SIZE COMPARISON.** These provinces are more than two and one-half times the size of Texas, our largest state, and have a population about equal to Louisiana's. But Louisiana is much smaller.

kets and brought back tools, furniture, clothing, and other manufactured goods that were made in the eastern cities.

As his freight train rattled westward, Olaf felt a surge of hope and excitement. He would soon have a farm of his own.

What kind of land and climate do we find in the southern part of the Prairie Provinces? Bob tells us that the flat, fertile land that drew homesteaders like his grandfather, Olaf Johnson, is part of the same prairie land that stretches south into North and South Dakota. The soil is deep and free of stones. Much of it was once the bed of an enormous lake and is rich in those minerals needed for the growth of crops.

The climate is severe. In the summers the thermometer sometimes climbs to

100° and over, and in the winters the temperature often drops to 40° or 50° below zero.

Regions with such great extremes of winter and summer temperatures are said to have a *continental climate*. This is somewhat different from the climate we found in the Maritime Provinces. Their climate is also continental, but it is tempered by winds from near-by bodies of water. The water heats up slowly in summer. Winds off the water keep the land from becoming too hot. In winter the water cools slowly. Then the winds help keep the land from becoming too cold.

But here on the northern plains of the North American continent there are no large bodies of water to temper the climate. In the winter when the days are

short and the sun is low in the southern sky, the land cools off rapidly. In the summer, when the days are long and the sun is high, the land quickly becomes warm.

The rainfall on the prairies is light—between ten and twenty inches a year—and most of this falls during the long, hot summer days. This is enough moisture for wheat, but not enough for corn and many other crops that can be grown in the eastern provinces where rainfall is more abundant.

The dryness of the Prairie Provinces is welcome in one way. Bob says that he does not mind either the heat or the cold because the climate is so dry.

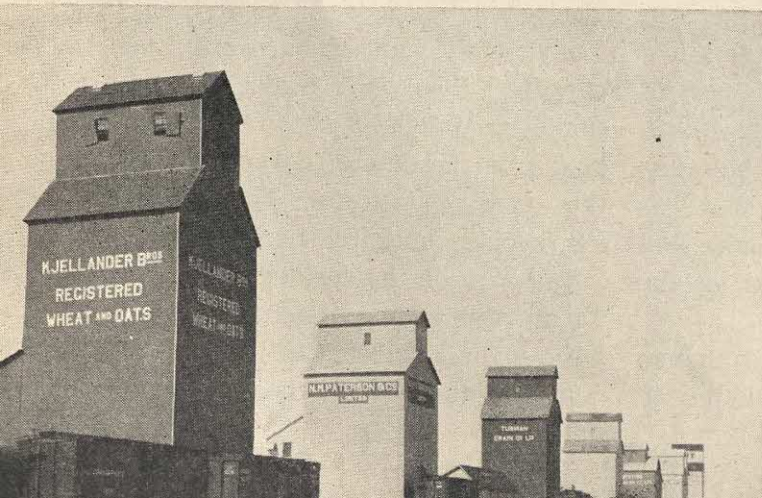
Why is this a spring-wheat belt? Bob tells us that this is almost an ideal region in which to grow *spring wheat*. This wheat grows best in regions where the summers are hot and where much of the rain falls during this hot season. The climate of the Prairie Provinces is just about what is required for growing spring wheat.

Spring wheat is planted in Manitoba, Saskatchewan, and Alberta in April and May. The wheat grows fast during the heat and rain of the summer, and it is

harvested in late summer or fall. The introduction of spring wheat into the Prairie Provinces transformed their flat grasslands from a region suitable only for cattle grazing to one of the world's greatest wheat-growing areas. Today Canada's wheat is its most valuable farm product and most important export.

What is a modern Prairie Province wheat farm like? Bob says, "My grandfather had to build a sod house when he staked out his farm on the treeless plain of southern Saskatchewan. But after he had sold some of his harvests, he bought some lumber, which had been shipped in from the east, and built a new home. Later he planted trees around the farmhouse for shade from the bright, hot sun. Since my father took over the land, we have bought farm machinery, an electric power plant, some household appliances, and an automobile.

"On our farm we plant 500 acres of wheat toward the last of April or the beginning of May with a 20-foot drill drawn by a tractor. Late in August we harvest the wheat. Years ago, twenty men were required to harvest 500 acres of wheat. But today, with the aid of a combine and caterpillar tractor, my



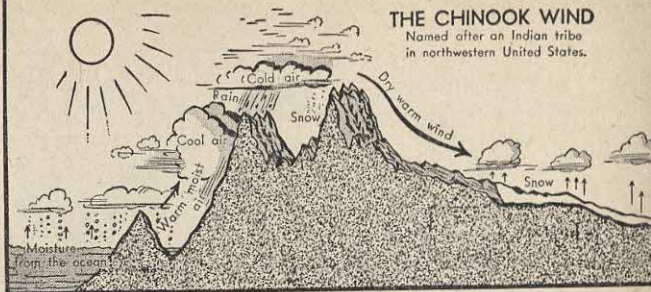
Every few miles we pass these "prairie skyscrapers", as grain elevators are called. In the late summer and fall, the elevators are filled to bursting with wheat and oats. All through the year the freight cars are loaded at the elevators to carry the grain off to lake ports or distant cities.

As the westerlies climb over the mountains, they lose their moisture and become the dry chinooks that steal moisture from the land.

father needs only his four sons to help him during the harvest. The combine cuts a 20-foot swath and threshes the wheat at the same time; it also keeps the fine, clean grain in a large tank at the top of the machine until a wheat truck comes along to take it to an elevator.

"We farm with machinery in Manitoba, Saskatchewan, and Alberta because the land is flat and free of stones and the farms are ten times as large as in eastern Canada. However, not all of the fields are planted in crops. The wheat farmers have discovered that land yields more bountifully if it is given a chance to rest every other year or so. Therefore, some of the fields are allowed to lie *fallow*, or idle. However, the fallow fields are cultivated to keep the weeds down and to keep the moisture in the soil."

What are some disadvantages of wheat farming in the Prairie Provinces? Bob says, "Just by looking at the wheat fields that stretch to the horizon and at the many grain elevators, you might think that the prairies are the best possible region for wheat farming. But this is not quite true.



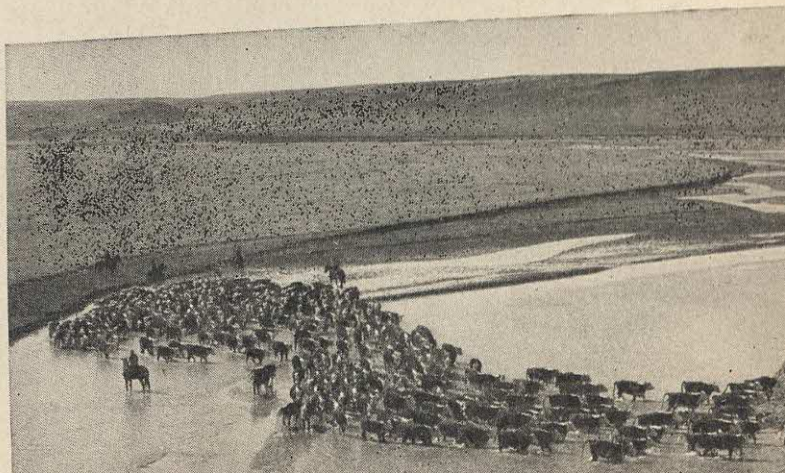
"The prevailing winds are the westerlies; that is, they come from the west. When they leave the Pacific Ocean they are warm, moisture-laden winds. But as these winds cross the Rockies they lose most of their moisture. Indeed, by the time they reach western Alberta they are sometimes so dry that they even pick up moisture from the land. These drying winds are called *chinooks*. When they blow during the summer, the chinooks dry out the soil so that the wheat may be damaged. In the winter these same winds carry off the protecting blanket of snow and thus leave the ground exposed to the very low temperatures.

"Now even in good times we have just barely enough rainfall to grow our crops. But when the chinooks are very bad, or the rainfall is light, our crops fail and everyone in the Prairie Provinces suffers.

"In summer grasshoppers often eat the crops. Hailstones sometimes destroy it. Wheat farming can be a risky business on the prairies if Mother Nature doesn't co-operate."

Alberta leads all the other provinces in number of cattle raised. This herd is on its way to summer pasture. How many cowboys do you see? Later on in the summer this wide river will probably be only a thin trickle through the drying mud.

Courtesy Canadian Government





Winnipeg is a modern city with skyscrapers and wide streets. Does it look more like Quebec or a midwestern United States city?

Courtesy Canadian Government

better return for their farm products and to purchase manufactured goods at lower prices by organizing into *co-operatives*.

What are co-operatives? A co-operative is an organization of people who have joined together to sell their own products or to buy the products of other people.

Farmers of the Prairie Provinces have formed co-operatives to sell their wheat. They take their wheat to the grain elevators owned by the co-operative, and the co-operative then sells the wheat for its members.

Co-operatives also buy fertilizers and other things for their members. They try to buy in large quantities and then pass the savings on to the members of the co-operative.

Why is Winnipeg an important city? Our train stops for a while at Winnipeg, and we are able to go for a short walk in this clean, modern city. Our guide tells us that it is the capital of Manitoba and the fourth largest city in Canada. All the transcontinental railways of Canada pass through this city.

The largest stockyards and meat-packing plants are located in Winnipeg. The greater part of the wheat harvests and dairy products of the Prairie Provinces are funneled through Winnipeg to the markets and ports in the East. More wheat is bought and sold in Winnipeg than in any other city in the world.

What have the farmers of the Prairie Provinces done to overcome their problems? In recent years farmers of the Prairie Provinces have been practicing mixed farming. More and more farmers are engaging in dairy farming, stock raising, and poultry raising. Alfalfa, hay, sunflowers, and clover are grown as feed for the animals. Sugar beets and potatoes are now raised in the Prairie Provinces.

Wherever possible, farmers are irrigating their fields to provide enough moisture for crops, and they are planting rows of trees to prevent the hot winds from blowing away the topsoil. Agricultural scientists are helping the farmer fight the various crop diseases. Mixed farming is giving the farmer more products to sell, and there is less danger of his suffering the serious loss that the failure of a one-and-only crop brings.

The farmers are attempting to get a road north to the Manitoba port of

Churchill, on Hudson Bay, which is almost 1,000 miles nearer Europe than Montreal. But because Churchill's harbor is icebound for all but a few summer months, Winnipeg is Canada's great gateway between the East and the West.

"This city is a shopping center for farmers who live hundreds of miles away," Bob says. "It has many mail-order houses which ship articles that

farm families have picked out in the catalogs of these firms. The largest department store in Winnipeg is the Hudson's Bay Company store. This store is one of the modern activities of the Hudson's Bay Company, which played such an important part in the history of the Prairie Provinces. When we get back on the train, I'll tell you about what happened here before the farmers came."

THE FOUNDING OF THE PRAIRIE PROVINCES

Who first explored and settled the Prairie Provinces? The first explorations of the Prairie Provinces were made in the far north. Do you remember that starting about 1670 the Hudson's Bay Company established a chain of fur-trading posts around Hudson Bay? Indians from the prairies brought their furs in canoes over the rivers and lakes to the Hudson's Bay Company posts.

For about seventy-five years the English had this fur trade all for themselves. Then French explorers and trappers paddled and *portaged* their canoes westward from the Great Lakes to the lakes and rivers of the prairie lands. They soon developed a rich fur trade in this southern region. Gradually, more and more French trappers and traders came to the southern lakes and prairies. Many of these men never again returned to the cities and towns back east. Instead, they married Indian girls and began to rear families in the wilderness.

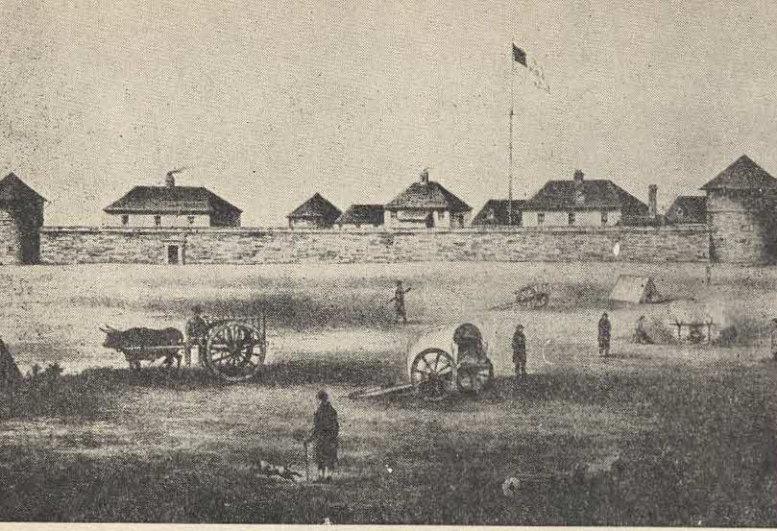
These French-Indian families often lived in tiny settlements close to the trading posts. They raised small gardens in the summer and the men spent much of their time trapping in the winter.

One French-Indian settlement, espe-

cially, began to grow. It was in the Red River Valley. Today this settlement is the second largest city in Manitoba. It is across the Red River from Winnipeg and is called St. Boniface (*sânt bônî-fâs*). This is the only large French-Canadian center in western Canada.

Many years later another settlement began in the Red River Valley. In 1812, long after the English had taken Canada from the French, a community of Scotch farm folk settled near the present site of Winnipeg. It is interesting to know that they reached their new homes through Hudson Bay. See if you can follow the rivers and lakes that they might have used to reach the Red River Valley.

At first the traders and trappers in the valley tried to drive the settlers away. They feared that if farmers came into the region, the wild game would be driven away. The French-Indians, who were called *métis* (*mă'tēs'*), ruined the crops and burned the houses of the Scotch farmers. But the sturdy Scotchmen rebuilt their homes and planted new crops, and gradually the settlement grew. For many years the Scotch settlement in the Red River Valley was the only farm community in the entire region.



Old Fort Garry once stood on the site of Winnipeg. Its ruins are still preserved in a park. Notice the flag with the letters H. B. C. This was a Hudson's Bay Company trading post, to which trappers brought their furs for many years. At that time high walls and round towers were needed for protection from the Indians.

When did more settlers begin to come into the **Prairie Provinces**? A few years after the Dominion of Canada was formed in 1867, the lawmakers at Ottawa decided to encourage settlement of the prairie by homesteaders, just as the United States was doing during this same period. In a year so many people had moved west of the Red River that the province of Manitoba was formed and admitted into the Dominion of Canada.

These early farmers west of the Red River had many difficulties to overcome: crop failures, poor roads—even hostile Indians and métis. We remember how the Indians in the United States resented the coming of the white men who killed off the buffalo and other game. The Indians and métis of Canada felt the same way. Several times there were uprisings in which settlers were killed, their homes burned, and their cattle driven away. But the farmers kept coming. In time the Indians were placed on reservations just as they were in the United States, and with the help of the Royal Northwest Mounted Police the entire region became safe for everyone.

What is the Royal Canadian Mounted Police? About the time that the Cana-

dian government opened the prairies for settlement, it organized the Royal Northwest Mounted Police to keep peace and enforce the laws. Several years later the name was changed, and now this group is called the Royal Canadian Mounted Police.

They often carry the mail to distant settlements, fight prairie fires, preserve wild life—game, other animals, and plants—and report on the condition of crops, roads, bridges, and weather. Often they care for the sick and injured, act as judges between settlers who may have disputes, protect government buildings and dockyards, register aliens, and so on almost without limit.

By the time Bob has finished his story about the “Mounties,” our train has crossed from Manitoba to Saskatchewan and is now arriving at Regina (rê·jî'nâ), the capital of the province.

One of Bob's brothers has driven in from the Johnson farm to meet us and to show us the city. We ride through Regina's wide streets, lined with beautiful homes. The many tall grain elevators we see remind us that we are in the very heart of one of the world's greatest wheat-growing regions.

RESOURCES OF THE PRAIRIE PROVINCES

What important resources do we find besides farm lands? As we have seen, by far the most valuable resource of the Prairie Provinces is the rich and fertile prairie in the south.

Just as in Ontario and Quebec, the northern portion of the Prairie Provinces is a lake and forest region whose resources enable people to make a living by hunting and trapping, fishing, lumbering, and mining.

Over half of all the fur pelts taken in Canada come from the northern wilds of the Prairie Provinces. Big-game hunters from as far away as New York and London fly into this region hoping to shoot a moose, an elk, a bear, or a deer. Vacationers and settlers alike enjoy whipping the streams for the wily trout.

The great stands of spruce, pine, birch, and maple in the north have made lumbering an important industry. The treeless prairie region in the south is a good market for building lumber.

Mining is becoming more important in the Prairie Provinces. It ranks next to agriculture in value. One-third of all Canada's coal comes from Alberta and nine out of ten barrels of oil.

Westward to the Rockies. After thanking the Johnsons for their hospitality and Bob for his stories of the Prairie Provinces, we board the train at Regina for our journey westward. By the next morning we have passed from Saskatchewan to Alberta.

Coal is the most important mineral of the Prairie Provinces, but rich deposits of gold, silver, copper, zinc, and other minerals are found in a great mine beneath Flin Flon, Manitoba.

Courtesy Canadian Government

West of Calgary, Alberta, we see huge ranches with big herds of cattle, horses, and sheep grazing on the dry grasslands. Next to wheat, these animals and hogs are the most valuable products of Canada's farms. We see smaller farms also, and notice the irrigation ditches and canals that crisscross the green fields. Bob has told us that this is the driest region in the Prairie Provinces, and we realize the need of irrigation.

Soon our train is beginning to climb the Rockies. The conductor calls, "Next stop is Banff!"

Why do the Canadian Rockies bring many tourists to Alberta? The town of Banff is in a green valley almost completely encircled by towering mountains whose snow-capped summits reflect the gold of the sun.

At the Government Information Bureau, where we go for maps, we meet an American boy our own age. "I don't know which is better," he tells us, "Banff or the Grand Canyon. When we were at the Grand Canyon a couple of weeks ago, I couldn't see how any place could be more beautiful. But riding the pony trails through Banff National Park has been wonderful. Wait till you see."





It's easy to see why the Canadian Rockies are so popular with tourists. Breath-taking snow-covered mountains, crystal lakes, stately pines, fearless deer, and even Indians would interest almost anyone.

Courtesy Canadian Government

The scenery as we ride west to Lake Louise in our rented, open-top car is awe-inspiring. One magnificent view follows another, each more breath-taking than the one before. Tourists are hiking and riding horseback over the trails. We see "Mounties" on horses answering the questions of these vacationers. On nearby slopes we catch glimpses of Rocky Mountain bighorn sheep and bears among the brightly colored wild flowers.

At Lake Louise, west of Banff, we see the natural mirror for which Banff National Park is world-famous. The surface of the lake reflects the mountains, forests, and passing clouds. The color of the water changes magically with every variation of light or breeze.

Looking at our maps we see that there are many such mountain playgrounds in the Rockies. We notice that in southwest Alberta one park, Waterton Lakes, borders Glacier National Park in Montana; the two together are called *Waterton-Glacier International Peace Park*.

We board a train at the Lake Louise station and continue our journey westward. As we go through Kicking Horse Pass, leading into British Columbia, we

are told that the *continental divide* here forms the boundary between Alberta and British Columbia.

What is a divide? A divide is a ridge of higher ground that *divides* the drainage of a region. Streams that begin on the Alberta side of the continental divide generally flow eastward or northward to Hudson Bay or to the Arctic. The streams that begin on the British Columbia side of the divide flow westward to the Pacific.

What do we want to remember about the Prairie Provinces? As our train roars westward through the glistening, ice-capped Rockies, we recall some of the things our friend Bob told us and showed us in the Prairie Provinces.

The most important fact we learned is that the flat lands of southern Manitoba, Saskatchewan, and Alberta are one of the greatest wheat-growing areas of the world. Spring wheat is grown on the large farms. There is mixed farming, too, and much dairy farming, poultry farming, and stock raising.

The farmers who settled these prairie lands came from eastern Canada, the United States, and Europe.

The French fur traders and the Hudson's Bay Company bartered for furs in this region long before the farmers came. Then the Canadian government purchased these lands and opened them for settlement. The Royal Northwest Mounted Police helped to make this territory safe for the settlers.

The important cities of the Prairie

Provinces are: Winnipeg, Manitoba; Regina, Saskatchewan; and Edmonton and Calgary in Alberta.

Alberta is the leading coal- and oil-producing province in Canada. National parks in the northern forests and in the Rockies on Alberta's border bring many thousands of tourists to the Prairie Provinces.

YOUR ACTIVITY PROGRAM

The Prairie Provinces are a good example of the effects of environment upon the lives of people. This activity section will help you to learn more about these effects.

Solving the Problems

A. Recognizing the Problems

1. Write the problems of this unit in your notebook.
2. How many of the problems are about all three of the Prairie Provinces? How many of them are about only one of the provinces? What does this indicate about these provinces?

B. Gaining the Understandings

1. Write the numbers corresponding to the following statements on a separate piece of paper. Place a plus sign (+) after each number that represents a true statement and a minus sign (—) after each number that stands for a false statement.

- (1) Manitoba, Saskatchewan, and Quebec are the Prairie Provinces.
- (2) Each of the Prairie Provinces has a smaller population than Montreal.
- (3) Some pioneers came to this part of Canada from the United States.
- (4) The soil in these provinces is rich.
- (5) The climate of the Prairie Provinces is temperate.
- (6) The Prairie Provinces have a marine climate.
- (7) The Prairie Provinces are well suited to growing wheat.
- (8) Not much farm machinery is used in this part of Canada.

- (9) Chinooks are beneficial, rain-carrying winds.

- (10) Wheat farming in the Prairie Provinces has its disadvantages.

- (11) Mixed farming is better for the lands than one-crop farming.

- (12) The farmers have organized co-operatives to help them in buying and selling.

- (13) Winnipeg is the largest city in Canada.

- (14) Most of the products which are shipped from west to east must go through Winnipeg.

- (15) The first explorers of the Prairie Provinces came from the Pacific coast.

- (16) Few furs were to be found in the southern part of the Prairie Provinces.

- (17) The first settlement in the Red River Valley was St. Boniface.

- (18) Métis were people who were part English and part French.

- (19) The province of Manitoba was formed a very short time after the land was purchased from the Hudson's Bay Company.

- (20) The Royal Canadian Mounted Police was once called the Royal Northwest Mounted Police.

- (21) Most of the manufactured products of the Prairie Provinces are machine tools.

- (22) The Prairie Provinces have much fish and game.

- (23) More coal and oil are produced in Alberta than in any of the other provinces.

(24) There are no mountains in the prairie provinces.

(25) Canada's national parks are not very well developed, and few people visit them.

2. Be sure that you can locate the following places on the map, and tell the importance of each:

Alberta	Lake Winnipeg
Banff	Manitoba
Calgary	Red River
Churchill	Regina
Edmonton	St. Boniface
Lake Louise	Saskatchewan
Lake of the Woods	Winnipeg

3. Be able to explain the following terms:

chinooks	drill
combine	fallow
continental climate	marine climate
continental divide	métis
co-operative	spring wheat

Enriching the Understandings

1. From reference books see what you can find out about the lake which once covered much of the Prairie Provinces.

2. From magazines or mail-order catalogs make a collection of pictures of the equipment you would need to run a farm in the Prairie Provinces.

3. Dramatize scenes from the life of Olaf Johnson. You could make up a few about some of the things which might have happened to him after he reached his destination.

4. Read some of the suggested books about the Prairie Provinces.

5. Do some research on methods of rotation farming, and compare them with the method of allowing fields to lie fallow. Give a class report comparing these practices.

6. Find out more about co-operatives. Other countries have used them even more than Canada—for example, the Scandinavian countries.

7. Do some more research on the development of the fur trade of western Canada and give a report on some particularly interesting part of it.

8. Make a history picture map of the Prairie Provinces, using information which you found in

this unit, and also material from reference books.

9. Dramatize some exciting story of the "Mounties." Or you might write an original story.

10. Decorate your classroom with pictures of scenes from Canadian national parks.

11. Do a little exploring in your part of the country, and see if you can discover a divide. It may be a small ridge where water on one side flows into one lake or stream, and on the other side flows into a different lake or stream.

Applying Your Knowledge

Write a short paper about the difficulties and advantages of farming on the Canadian prairies. If you have information about prairie farming in the United States and other parts of the world, you may use that, too. Be sure to include the following points, as well as others:

Fertility of the soil and methods of keeping it fertile

Use of farm equipment

Chinook winds and their effects

Effects of temperature and rainfall; use of irrigation

Importance of transportation and trading centers

Forming Opinions and Attitudes

It is usually more difficult for us to change our *attitudes* toward things than our *opinions* about them. Do some careful thinking about your attitudes on the following questions, and see if you can decide how you got the attitudes you have. Are all of your attitudes based on good reasons, or do some of them need changing?

1. The fur traders, as we have seen, tried to keep the settlers out of the Prairie Provinces so that the game would not be driven away. The settlers continued to come, however, because they needed good farm land. Was either side right in this controversy? What is your attitude?

2. Some people feel that it was wise to bring European civilization into the Americas, even though the Indians suffered a great deal as the settlers took over their land. How do you feel about this? How should we treat the Indians today? What is your attitude toward this problem?



Canadian National Film Board

Thousands of people visit the Canadian Rockies every year. Some of them fish or hunt; some walk or ride over the mountain trails, while the more adventurous climb to the lofty, snow-capped peaks; many vacationers simply relax and enjoy scenery like this. In the background we see Cathedral Mountain, in British Columbia.

15. *British Columbia and the Northland*

For hours our train has labored through the mountains of British Columbia. Ever so often we have plunged into the darkness of long, curving tunnels. Then we have emerged to see again the white peaks rising above dark green slopes and, in the valleys below, rivers and lakes, clear blue in the brilliant sunlight.

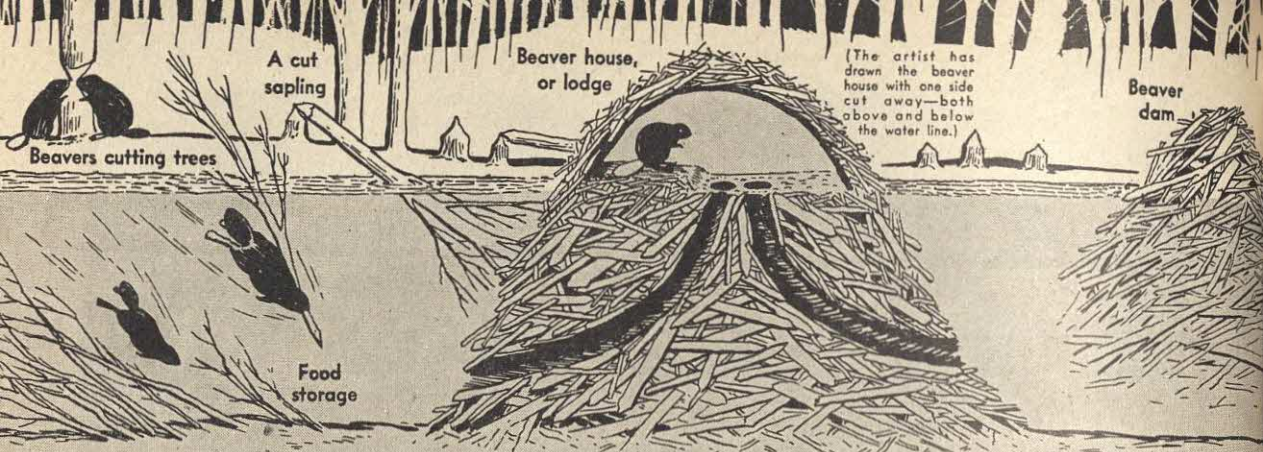
How did a small animal help to bring about the exploration of British Columbia? Do you remember the fishermen who came to catch cod on the North American fishing banks shortly after Cabot's and Cartier's voyages? They often saw Indians on the wild shores and tried to trade with them. At first the fishermen were disappointed because beaver pelts seemed to be about all the Indians had to trade. The beaver fur

seemed coarse, not at all like the soft mink and ermine furs that were so prized by the nobles of the Old World.

But just about that time the European hat makers began to make hats from fur. The furs of rabbits and other European animals were used at first. Then hat makers found that they could use beaver fur from the New World. This beaver fur mixed with rabbit fur produced the best-looking felt for hats. Hats made from this mixed felt—they were called "beavers"—became the leading style. Beaver pelts soared in value.

Of course, the rich people of the Old World wanted all kinds of furs. They used fur trimming on their clothes, fur bed spreads, fur cloaks, and fur hangings in their drafty palaces.

France was the first country to realize



HOW A BEAVER COLONY LIVES AND WORKS

Some of the little animals we see here are building and repairing their lodges with mud and sticks, or are hard at work accumulating a supply of food for winter. The branches stuck into the bottom of the river are part of this food supply.

the worth of the furs of the New World. Fur-trading centers were founded along the St. Lawrence. When furs became scarce, the traders were sent deep into the forests to trade with the Indians of the interior.

We have seen that after a while the English, too, became interested in the fur trade. They organized the Hudson's Bay Company, and gradually the search for furs widened.

By this time the most valuable pelt of all was the beaver. Beaver pelts were even used as money at the outlying posts. A trapper could buy a blanket for six pelts. A pound of tobacco cost one pelt, as did five pounds of sugar or a pound of shot.

No wonder then that the mere rumor of beaver colonies along some far-off woodland river sent trappers hundreds of miles through the wilderness in search of this treasure of the forest.

As the trappers worked around the beaver colonies, the animals were gradually killed off. Trappers hunted new beaver dams south from Hudson Bay, west from the Great Lakes, and farther

westward on the prairies as far as the Rocky Mountains.

Finally, Alexander Mackenzie, an explorer for one of the great fur companies, pioneered a route across the Rockies. When he reached the Pacific Coast, he proudly painted these words on a rock: "Alexander Mackenzie, from Canada, by land, the 22nd July, 1793." He was the first white man to cross the Rockies.

"This was quite an accomplishment," our new friend, Mr. Nelson, says, "because for years these mountains we are crossing barred the way of the fur traders. In fact, what is now British Columbia was first discovered from the sea. Two British naval officers, Captain Cook and Captain Vancouver, explored and claimed the coastal area for England."

For the next sixty years about the only people who ventured across the Rockies were the fur traders. Few people in eastern Canada had even heard about the lands beyond the Rockies.

What caused more settlers to come to British Columbia? Then gold was discovered in the Fraser River Valley in

British Columbia. We remember the rush of gold seekers to California when gold was discovered there in 1848. The same thing happened in British Columbia in 1858. Thousands of people left the farms and cities of eastern Canada to seek their fortunes in the far West. They crossed hundreds of miles of uninhabited prairies just as many of the "forty-niners" had done in the United States. Ships brought scores of prospectors from many lands to the western coast.

Gradually, many of these prospectors grew tired of trying to *pan* gold out of the rivers. Some of them settled on the fertile land of the river valleys and became farmers. Others went to work in the trading posts selling supplies to farmers and prospectors or pursuing their old trades as carpenters, tailors, shoemakers, or barbers. These trading posts became the towns and cities of British Columbia.

When did British Columbia become a province of Canada? In 1871, four years after the founding of the Dominion of Canada, the people of British Columbia voted to become a province of Canada. Because the new province was separated from the rest of Canada by the mountains and by hundreds of miles of *sparse*ly settled prairie land, the western Canadians demanded that a transcontinental railroad be built. After many delays a railroad joining East and West was finally completed. The first train made a journey from Montreal to the Pacific in 1886.

"The railroad brought many more settlers to British Columbia," Mr. Nelson says. "The province now has nearly a

million inhabitants. More than half of our people are of British descent. The others have come from the United States, Sweden, Norway, Finland, Germany, China, and Japan to make their homes here. Now, all these people live and work together as Canadians."

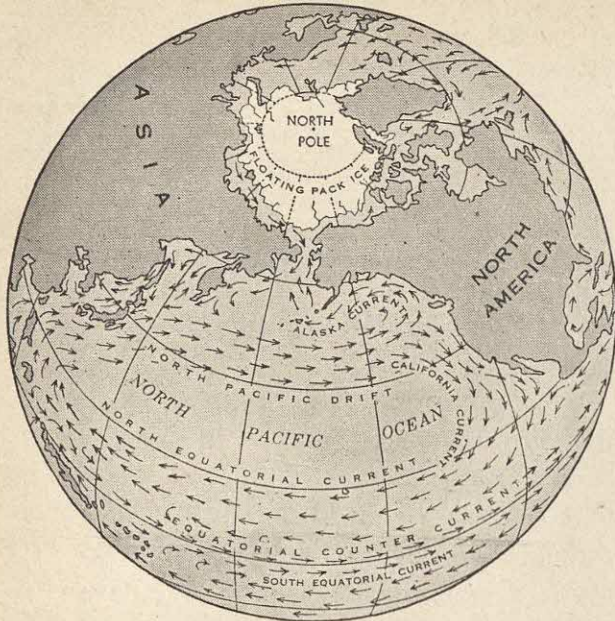
What does the map show us about British Columbia? Most of British Columbia is mountainous, with long ranges that run north and south. Our journey through the province began in the Rockies on the Continental Divide. We have since crossed other, smaller ranges and a rolling country between the mountain ranges known as the *Interior Plateau*. Now we are winding through the mountains of the *Coast Range* near the Pacific. We learn that many years ago there was still another mountain range farther west which settled into the ocean. Now only the peaks appear above the sea as islands strung along the coast.

British Columbia is the third largest Canadian province. It is nearly one and a half times as large as Texas.

How does the Pacific Ocean affect the climate of British Columbia? "Three out of four of the inhabitants of British Columbia live in the southwestern part of the province," Mr. Nelson says. "I think people like to live there because of the mild climate."

This area is near the ocean. It has a *marine* climate. As we have learned, the winter in such a climate is not extremely cold nor is the summer extremely hot.

Our guide adds, "There is another reason why the average winter temperature in the area we are about to visit is above the freezing point. The breezes that



blow from the west are warmed by a current in the Pacific Ocean that is quite similar to the Gulf Stream in the Atlantic."

We look at our maps to study the course of this current. Where does it pick up its warmth? What is it called as it flows east across the Pacific? What regions of the North American mainland does it warm? What is the current called in these waters?

How do the mountains affect the climate of British Columbia? As the warm, moisture-laden west winds rise to cross the western mountains, their moisture begins to fall as rain. On some of the western slopes there is almost 200 inches of rain a year. By the time these winds get over the mountains they have lost most of their moisture. In the valleys east of these mountains irrigation is necessary for farming.

"You can see then that British Columbia has the most varied climate of all the Canadian provinces," Mr. Nelson says. "In this one province are found the wettest and the driest regions of Canada, the warmest and almost the coldest.

Trace the currents in the Pacific Ocean on this map. Do you see where the warm current from the equator meets the cold waters flowing down from the Arctic Ocean? The warm Alaska Current turns north, warming the coasts of Canada and Alaska. The California Current turns south and follows the coast of California and Mexico.

It shouldn't surprise you that most of the people prefer to live in the mild climate that is found around the city of Vancouver."

Why is Vancouver an important city?

As we get off the train at Vancouver, we learn that it is the most important rail center on Canada's west coast. Later, when Mr. Nelson drives us through the city, we admire the modern skyscrapers and homes. We learn that well over a quarter of a million inhabitants live here, making Vancouver Canada's third largest city. Many mills and factories are located here. It is the first large manufacturing district we have seen since leaving Ontario. Mr. Nelson tells us that Vancouver is the center of most manufacturing in British Columbia.

As we near the harbor, we hear the noises of the cranes, pulleys, and trucks used in loading and unloading freight. At the long piers are ships of all sizes and flying the colors of many nations. We see grain elevators—by now a familiar Canadian sight.

A great deal of the grain of the Prairie Provinces is shipped from Vancouver to lands bordering on the Pacific. Because this port is open during the winter when ice is choking the St. Lawrence River and the Great Lakes, many products of western Canada are shipped from Vancouver to Europe by way of the Panama Canal. Vancouver is one of the leading Canadian ports.

Mt. McKinley,
20,300 feet

Mt. Logan,
19,850 feet

Mt. Cook,
13,760 feet

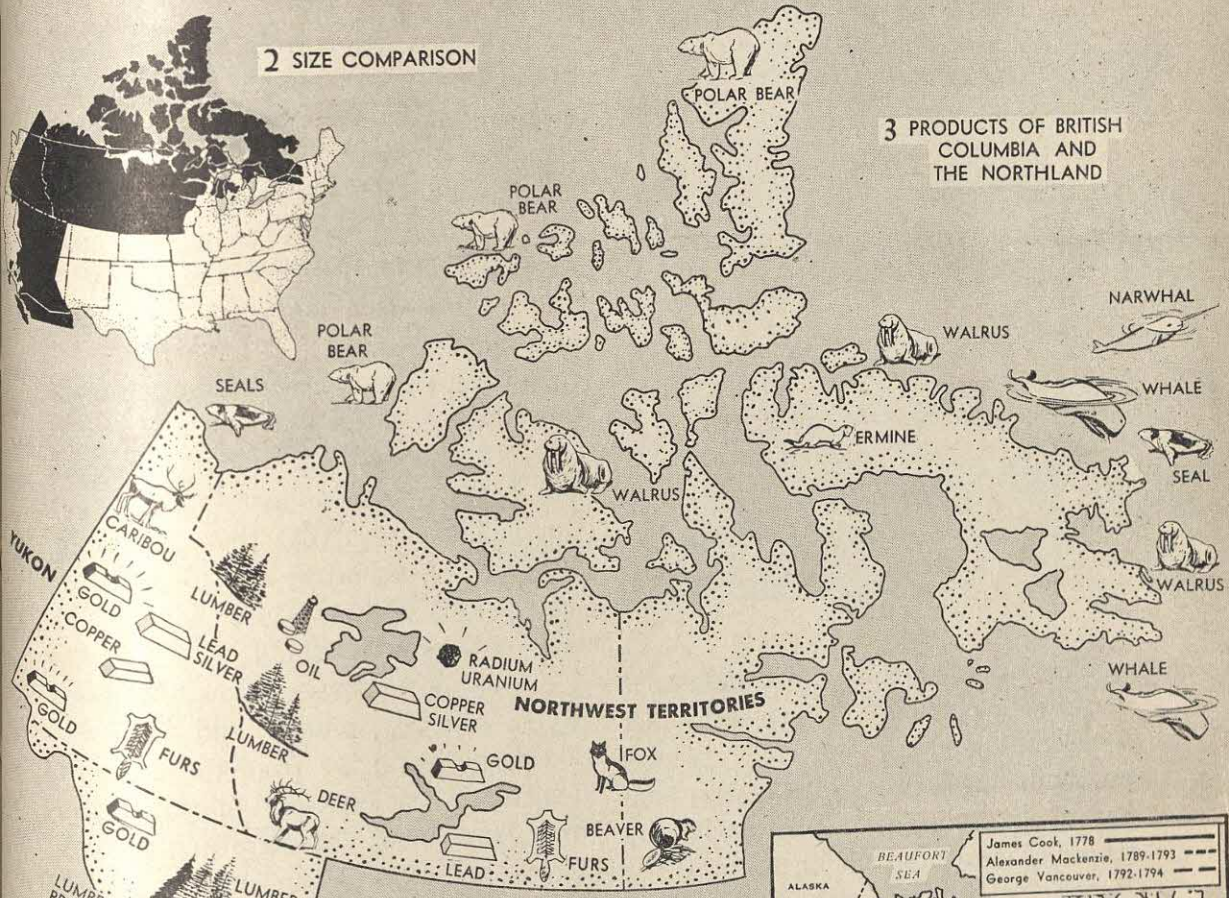
CROSS SECTION OF ALASKA AND CANADA at 60° North Latitude



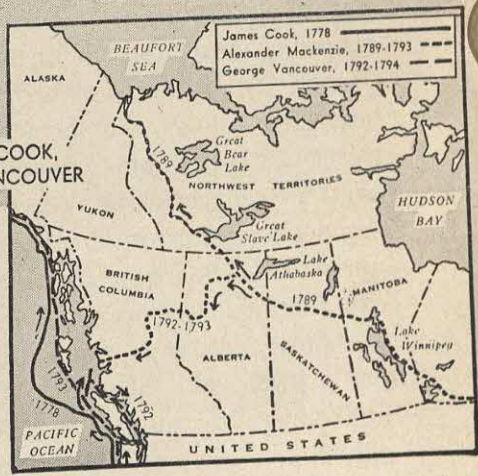
2 SIZE COMPARISON



3 PRODUCTS OF BRITISH COLUMBIA AND THE NORTHLAND



4 EXPLORATIONS OF COOK, MACKENZIE, AND VANCOUVER



THE STORY OF BRITISH COLUMBIA AND THE NORTHLAND TOLD BY MAPS AND DIAGRAMS

1. CROSS SECTION. Compare with the 60° line on the North America colored relief map. Note Alaska's high peaks in the distance.

2. SIZE COMPARISON. British Columbia and the Northland together are three-fifths as large as the United States. 3. PRODUCTS. Wood products have the most value in British Columbia. Though largely undeveloped, the Northland's mineral resources are said to be immense. 4. EXPLORATIONS. While western Canada was explored more than 150 years ago, much of the Northland is still unmapped.



Cutting down a tree as large as this one must certainly be many hours work for two men. Notice that the men seem to be standing on planks fastened high up on the trunk. Why do you suppose that this is done?

Courtesy Canadian Government

sawn lumber and sawmill products such as shingles, ties, and hoops are produced in British Columbia than in any other Canadian province.

In recent years more and more of the trees have been used to make pulp and paper, and now British Columbia ranks next to Quebec and Ontario in paper and pulp manufacturing.

Agriculture is the second most important industry. Near another ship we see cases of canned milk, tubs of butter, and boxes of cheese awaiting loading. Our guide tells us that these are from dairy farms in southwestern British Columbia—the Fraser River Valley and near-by Vancouver Island.

Farther down we see boxes of apples, pears, peaches, plums, and cherries. These, we learn, are from the miles of orchards in the Interior Valley, not far from the famous apple-growing regions across the border in our state of Washington. Where are the two other important fruit-growing regions of Canada?

Our guide tells us that the sides of beef being loaded into the refrigerator ship came from cattle raised on the ranches of the dry, grassland region north of the fruit farms.

“Most of the farms of British Columbia,” Mr. Nelson says, “are more like the farms of the far-off eastern provinces than they are like the farms of the neighboring Prairie Provinces. They are small, and mixed farming is the common practice.”

What are the resources and industries of British Columbia? At a near-by pier we see piles and piles of lumber, planks, and building beams. Much of this lumber is cut from the giant Douglas firs which grow on the slopes of the Coast Range—trees four to eight feet in diameter and from 200 to 300 feet tall. Mr. Nelson tells us that valuable stands of western red cedar, spruce, and western hemlock also grow on the rain-soaked mountainsides. More than half of British Columbia is covered with forests.

Forest products are British Columbia's most valuable resource. Lumbering is a leading industry of the province. The lumberjacks of British Columbia use bulldozers, tractors, trucks, trains, and Diesel-motored loaders to haul the huge logs to the humming sawmills. More

Apples and other fruits are an important product of British Columbia. Do you remember any other regions in Canada where these fruits are grown? What kind of climate do all these fruit-growing regions have?

Courtesy Canadian Government

Mining and smelting is the third most important industry. A string of coal cars rattles slowly forward on a siding leading to the docks. Our guide tells us that British Columbia has coal for its expanding manufacturing industries and also for export. Only Alberta and Nova Scotia produce more coal than it does.

This province mines more zinc and lead than any other Canadian province. British Columbia is the third most important mining province of Canada.

The fishing industry is the fourth most important industry of British Columbia. In front of some long warehouses, we see cases of canned salmon being unloaded from trucks. Mr. Nelson informs us that because of its salmon, British Columbia is the leading fish-producing province of Canada. Most of the salmon are caught in the Fraser River.

"There is one narrow gorge in this river," Mr. Nelson says, "where the water rushes down so violently that many salmon coming in from the sea to



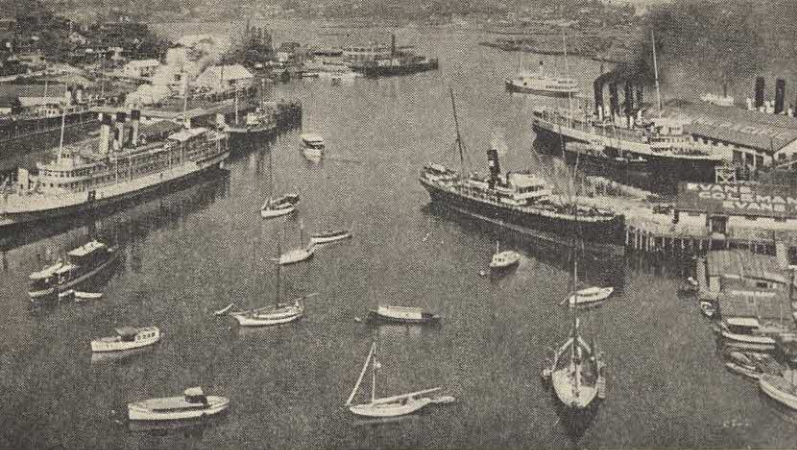
lay their eggs cannot get up the river. Because of the importance of the salmon supply to both countries, the United States and Canada recently shared the expense of cutting channels into the rocky banks of the falls. These channels—or *fishways*, as they are called—are detours around the falls for the salmon."

A ferryboat ride to Vancouver Island. As we continue along the water-front section of the city of Vancouver, we come to a ferry dock. "Let's take a ferryboat ride to Vancouver Island," Mr. Nelson says. "You see, there are two places in British Columbia named

This moose seems to have been frightened—perhaps by a sudden noise or movement. These animals are protected in some parts of British Columbia by laws which forbid hunters to kill them. But tourists still "shoot" them with film and camera.

Courtesy Canadian Government





Victoria is separated from the mainland by a narrow strait. Tourists and vacationers must come to this beautiful city by ferry. The city is a center of the fishing and lumbering industries on Vancouver Island. Can you think of any other reasons why the harbor here is so important?

Courtesy Canadian Government

after the British explorer of this coast—the city of Vancouver here on the mainland and the island across the strait.”

What do we see on Vancouver Island? A few steps from the ferry dock in the city of Victoria we come to the beautifully landscaped grounds of the Parliament buildings. We know then that Victoria is the capital of British Columbia.

We are surprised to see that the policemen on the city's streets wear helmets like the London policemen we have seen in the newsreels. “The Canadians here in Victoria are proud of the fact that they live in the most British city in Canada,” Mr. Nelson says. “Cricket and English rugby are the favorite sports here, and almost everybody enjoys a spot of tea in the afternoon.”

In the residential district we tell Mr. Nelson that we have never seen so many flower gardens in a city. We learn that flowers bloom the year round in Victoria. Because Vancouver Island is close to the path of the warm Pacific current, the climate in this region is the mildest in all of Canada. That is why the island is a favorite resort for tourists from other parts of Canada.

What should we remember about the province of British Columbia? We return to the city of Vancouver where we

purchase tickets for a boat leaving for Seattle in the evening.

“Here’s what I believe you should remember about our province,” Mr. Nelson says. “British Columbia was settled by pioneers who traveled great distances to come here. First they came for furs, then for gold, and now they come to work in the many industries. This third largest province is one of the fastest growing regions of Canada, now ranking third in population.

“British Columbia’s tall, straight trees have made it the leading lumbering province of Canada. Our fisheries are the most productive in the Dominion. We rank third in mineral production.

“Most of the land is mountainous, but the soil in the river valleys is fertile. Farming is the second most important occupation, and one of Canada’s leading fruit-growing regions is found here. There is room for many more farmers in British Columbia.

“There are great extremes of climate in the province. Three-quarters of the inhabitants live in the temperate southwest.

“Vancouver is the leading Canadian port on the Pacific, and the third largest city in Canada. Victoria, on Vancouver Island, is the capital of the province.”

CANADA'S GREAT NORTHLAND

We have had our last meal in Canada at Mr. Nelson's home. Now in his living room he says, "I can't let you leave Canada without telling you something about Canada's Northland."

Where is Canada's Northland? Mr. Nelson asks us to look at our maps and find the Yukon Territory and the Northwest Territories. These territories are Canada's Northland—a vast region that is one-third of all Canada and yet has but 17,000 inhabitants—one for each 90 square miles.

Our friend points out the many lakes and rivers in this land. "The northern parts," he adds, "are barren, treeless stretches where only hardy Arctic grass and mosses grow. This barren land is called *tundra*. South of the tundra is a broad belt covered with thick forests of spruce and fir."

Why has this part of Canada developed so slowly? "For many years, only Indians and Eskimos lived in the Northland. The weather is extreme up there—fifty to sixty degrees below zero in the winter and as hot as 100 degrees in the summer.

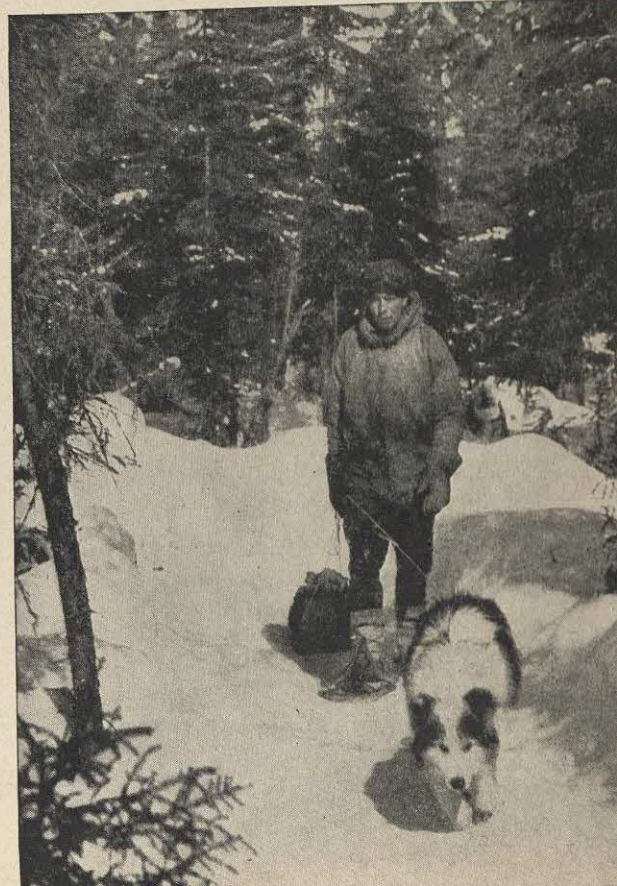
"You have learned how the fur traders surged westward across Canada to the Pacific. Well, Alexander Mackenzie explored the Northland before he made the first crossing of the Rockies. North of what are now the Prairie Provinces, he discovered the long river that today bears his name. He followed this river, hoping it would lead him to the Pacific Ocean. When it brought him to the icy

shores of the Arctic instead, he named it the "River of Disappointment."

What brought more settlers to the Northland? Just before the *twentieth century* began, gold was discovered in the Klondike region of Yukon Territory. News of the strike brought swarms of prospectors from all over the world to the frozen wilderness. Towns sprang up along the rivers almost overnight. One town, Dawson, soon had a greater population than there is now in all of the Northland.

"I flew up to Dawson a few years ago," Mr. Nelson says. "I met an old man there who pointed out to me where some of the hotels, stores, and amusement places of the 'gold rush' days had stood. He told me of the thousands of prospectors who milled about the streets

Paul's Photos



Some of the best friends a northern trapper has are his courageous sled dogs.



When gold was discovered in the Klondike region, prospectors knew only this method of obtaining the precious ore. Panning the ore was slow and tiresome work, and many tons of gold were lost by this inefficient method. Now gold is obtained by machinery, and almost none is lost.

Paul's Photos

of Dawson, paying for food, clothing, and lodging with gold dust panned in the near-by rivers.

"Fortunes were made by some of the gold seekers. Others were not so lucky. Soon the gold in the gravel beds was gone. Only mining machinery could extract what ore remained. Gradually, most of the people left. Dawson now has only about a thousand inhabitants, most of whom are employed by mining companies. It is one of the *ghost towns* of the Northland, with only a few inhabitants who remember the life and excitement of the Klondike days."

What are the most important resources of the Northland now? Mining is the leading industry, and more gold is mined than any other mineral. *Pitchblende*, a mineral from which radium and uranium are obtained, was found near Great Bear Lake recently. Both of the metals produced from pitchblende are very important. Radium is used in the treatment of cancer, and uranium is necessary in the production of *atomic energy*.

There are also some copper and silver mines near Great Bear Lake and Great Slave Lake. In the Yukon Territory there are coal mines and oil wells, but neither have been fully developed because of poor transportation.

What transportation is used in the Northland? There are no railroads in the far north, and until recently no roads of any sort. There is a very good reason for this—it is almost impossible to build them.

In the spring and early summer the surface of the frozen earth thaws, and the rivers overflow. This water cannot penetrate the still-frozen earth below the surface; so it spreads out over the land, forming wet meadows or bogs. This swampy land is often called *muskeg*.

No one can travel on muskeg when it is not frozen. Since the earliest days, therefore, settlements have been established along rivers, which are the summer highways of the Northland. Today, river boats head north, towing behind them barges and rafts piled high with flour, cloth, thread, hammers, guns and ammunition, steel traps, and other supplies needed by the inhabitants of the northern settlements. On their return trip these boats carry tons of ore from the mines and bales of furs.

Sleds have always been the winter vehicle of the Northland. Nowadays, tractors pull long trains of sleds over the frozen land, lakes, and rivers. These

The United States Army built this road to connect Alaska and the United States during World War II. It became the property of Canada at the end of the war, according to an agreement between the two countries.

Courtesy U.S. Army Signal Corps

tractor trains follow a clearly marked route, delivering supplies to settlements and picking up tools and machinery to be repaired and mail.

What is the Alcan Highway? Mr. Nelson says, "Despite what I've said about muskeg making it impossible to build roads in the Northland, one important highway now runs through part of Yukon Territory. In 1943, United States Army engineers completed a highway from the United States to Alaska—the *Alaska Highway*. Since it goes through Canada, it is also called the *Alcan Highway*.

"The construction of this road through the wilderness was a great engineering feat. One summer I went up north and watched them build a stretch of it. I'll never forget some of the men on bulldozers—the machines were hugging the side of a mountain so steep I thought their machines would turn over on them. But the drivers didn't seem to worry. Their only thought was to finish the road. I saw other men knock over and blast trees in the forests, fill in swamps, and build strong bridges across wide streams. If you ever travel over this road, remember the men who built it."

How important is air transportation in the Northland? "But only a small part of the Canadian Northland has



benefited because of the Alcan Highway," Mr. Nelson says. "Thousands of square miles of land must still depend on other means of transportation. To the people who live in those areas, the airplane is as important, and almost as common, as the automobile is in other regions. Mining settlements depend on planes to bring in food, clothing, medicines, mail, machinery, reading materials, and even new inhabitants.

"Planes cannot land on the spongy ground of the Northland; so they take off and land on the rivers and lakes. In summer, the planes are equipped with pontoons and in winter, with skis. The throbbing roar of the airplane engine is awakening the Northland."

James Sawders



To many children who live in northern Canada the airplane is more familiar than automobile or railway trains. Can you explain why? What do you think is being loaded on this plane?

The harbor and business districts of Vancouver are very busy. There are also fine shops and hotels, beautiful homes, and well-tended parks. The climate in Vancouver is mild the year round.

Courtesy British Columbia Travel Bureau



GOOD-BY TO CANADA

That same evening, from the rail of a ship gliding towards our own land, we watch the lights of Vancouver gradually fading into the distance.

On the long, eventful journey from Halifax to Victoria we found that meeting most Canadians was like meeting new next-door neighbors. Visiting many of the Canadian communities and much of the countryside was like visiting a section of the United States for the first time.

This is so because the United States and Canada were settled and developed by the same kind of people. People from the British Isles and elsewhere who believed in freedom of worship and expression, who wanted to live in a land where everybody had an equal opportunity to improve himself, who were willing to clear a wilderness to make a nation based on their beliefs, came to both countries. In lands that were very much the same, Americans and Canadians built prosperous, democratic countries.

We also saw that there are some differences between the United States and Canada. The exploration and early settlement of the St. Lawrence River Valley by the French brought about a French-

Canadian way of life in the cities and on the farms of Quebec Province. Canada's government differs from the government of the United States because Canada is a member of the British Commonwealth of Nations.

We remember that we traveled across the southern belt of the country because that is where the great majority of Canadians live and work. Canada needs many more people to develop the tremendous resources of her land. Our northern neighbor is still seeking immigrants from the British Isles and Europe, and new pioneers for Canada's frontiers.

Fish and fur were the resources that drew the first settlers from the Old World. The fertile soil drew others. We have seen that Canada's prairies are one of the great wheat-producing areas of the world. The minerals found in the Canadian Shield and elsewhere are helping to make Canada a leading industrial nation. Her great softwood forests and hydroelectric power from her streams have enabled Canada to become the world's chief supplier of newsprint paper.

The unguarded, easy-to-cross border between the United States and Canada is the friendliest dividing line between

two great nations in all history. Some years ago while other nations of the world were busy strengthening their borders with forts and soldiers, the United States and Canada were strengthening the bonds between the two countries.

On the boundary between North Dakota and Manitoba, only a few miles from the exact geographic center of North America, an *International Peace*

Garden is located. In its center stands a monument bearing this peace pledge:

To God in His Glory
We two nations do pledge ourselves
That so long as men shall live
We will not take up arms against one another.

Near the monument, and towering high above it, fly the *Union Jack* and the *Stars and Stripes*.

YOUR ACTIVITY PROGRAM

As you leave Canada, you will be interested in doing these activities to help you remember what you have learned about one of the fastest-growing provinces, British Columbia, and about Canada's great undeveloped Northland.

Solving the Problems

A. Recognizing the Problems

1. Write the problems of this unit in your notebook.
2. Which problem of this unit do you find the most interesting? Why?

B. Gaining the Understandings

1. Answer these questions briefly.

Why has the beaver been important to the development of Canada and British Columbia?

Why did the traders finally become interested in the beaver pelts?

What country began the fur trade in the New World?

What did Alexander Mackenzie do? Where can you find his name on the map of Canada?

Why is Vancouver an important name in British Columbia?

Why was the gold rush important to British Columbia?

Why did the people of British Columbia need a transcontinental railroad?

Is the population of British Columbia increasing or decreasing?

How were the islands just west of British Columbia formed?

Why is the climate of southwestern British Columbia so pleasant?

Why is irrigation necessary in the valleys east of the mountains?

How has Vancouver's location helped to make it an important transportation and shipping center?

Why is the harbor at Vancouver especially busy during the winter?

What are some of the things that are grown and raised on the farms of British Columbia?

What are some of the minerals found in British Columbia?

Why were fishways cut in the banks of the Fraser River?

What is the most important fish caught in British Columbia?

What city is the capital of British Columbia? Where is it located?

What kind of land lies north of the forest country?

Why has the Northland been so slow to develop?

Will the Alcan Highway help the development of the Northland?

What other kind of transportation has become important in the Northland?

How do airplanes land in the North?

Where is the International Peace Garden?

2. Be able to locate the following on the map and tell the importance of each:

Aklavik

Alcan Highway

Arctic Ocean
 Dawson
 Great Bear Lake
 Hudson Bay
 Klondike
 Interior Plateau
 Interior Valley
 International Peace Garden
 Mackenzie River
 Vancouver
 Vancouver Island
 Yukon Territory

3. Be able to tell the class what the following words mean:

atomic energy	gold dust
"beaver"	muskeg
bulldozers	pitchblende
fishways	tundra
ghost town	marine climate

4. Make a simple outline of the understandings of the problems of this unit. Use a few subpoints under each understanding.

Enriching the Understandings

1. The beaver is a very interesting little animal. Find out about it from reference books, and watch the magazines for pictures and stories about beavers. Visit a zoo if you live near one.

2. Write a story or a play about the gold rush in British Columbia. Show that many who came as prospectors settled down as farmers or merchants.

3. If you were to travel to Vancouver from your home, what are some of the routes and methods of transportation you could use? Draw a map showing these routes.

4. Draw a cross-section diagram of British Columbia and show how the mountains affect the rainfall.

5. Make a product display for British Columbia by tacking a map to a table or to the wall above a table and connecting each product with the proper spot on the map by means of thumb tacks and string.

6. To most of us an apple is just an apple. There are many kinds of apples, however, and each is particularly good for one or two purposes. Find out which kind is best for baking, for pies, for eating raw, and so on.

7. The Klondike in the Yukon Territory is a famous gold-producing region. Find out about the great gold rush to the Klondike and some of the stories that are told about those days.

8. The Pan American and the Alcan highways are two important roads which will some day help to connect the whole Western Hemisphere. In the future other roads will be built, too. Learn as much as you can about these highways, and keep a scrapbook about them.

Applying Your Knowledge

Write a short paper about the possibilities of future development in either British Columbia or the Northland. Include material on resources, climate, people, location, transportation, and anything else you consider important.

Forming Opinions and Attitudes

In this unit you learned that Victoria is proud of being the most British city in Canada. What does this tell you about how the Canadians feel about England? What do you suppose are some reasons for this attitude?

The Alcan Highway is now open to tourists, but it is not like highways in the United States, for there are almost no gasoline stations, billboards, or hot-dog stands along the road. Tourists will have to carry many of their own supplies. Do you think this highway was a waste of money, or do you expect many people to use it in future years?

Do some real research in reference books on the relations between Canada and the United States. What have we quarreled about? How have we solved our difficulties? Could these methods be applied to affairs between all countries? What can we do to make certain that our good relations with Canada will continue?

Now that you have finished all the units on Canada, do you think that it would be to the advantage of both countries to have even closer ties? What could they be?

Some Canadians have complained that people from the United States treat them as if Canada were less important than the United States. Do you think people from the United States have a right to feel this way? How do good manners apply in this case?



Steamers can travel for a thousand miles along the west coast of North America without facing the expanse of the Pacific—through the famous “inside passage.” This island-protected waterway is often hidden in fog or drenched in rain. The coast and the islands are bordered with little towns like this one, hugging the edge of the water. Notice the snow-capped peaks in the background.

16. *Alaska—Our Last Frontier*

Off to Alaska! How bright the sun this morning! How bracing the air! The skyscrapers of Seattle fade into the distance behind us. Our boat plows steadily northward through the blue waters of Puget Sound.

“It is about seven hundred miles to the southern tip of Alaska,” our new guide, Mr. Johnson, tells us. His office is in Seattle, where he is an executive of a large salmon-canning company. He is going to Alaska to supervise some work in a new cannery. He has promised to show us some of the most interesting sights in Alaska.

Alaska is a land of many wonders. It is a land of the midnight sun, a land of Eskimos and dog teams, a land where airplanes are as common as automobiles. There we shall see the tallest mountain in North America, great glaciers, huge forests, rich gold mines, fertile farms, and vast stretches of *tundras*—the frozen wastelands of the North.

How did the United States acquire Alaska? More than 200 years ago Russia sent an expedition under Captain Bering to find out whether America and Asia were connected. By sailing through the strait that now bears his name, Ber-



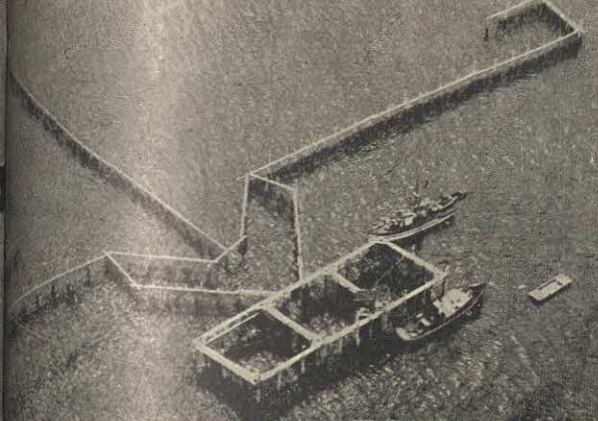
The relief map above is a photograph of a giant clay model of Alaska. It shows us at a glance where the mountain ranges and streams are located in this interesting country. In size, Alaska is one fifth as large as the United States, extending over 586,000 square miles.

ing proved that the two continents were separate. In 1741 Bering set out on a second expedition, and this time he discovered Alaska. His first glimpse of the country was of a high mountain, which he named St. Elias.

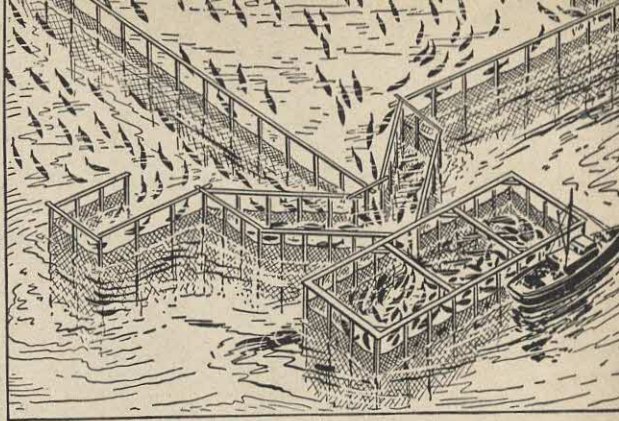
Thus Russia claimed the land, naming it Russian America. In 1867 the United

States bought the land from Russia for \$7,200,000. The name was changed from Russian America to Alaska.

Most Americans thought our government was wasting money by buying this arctic land. They called it "Seward's Ice-box" after William Seward, the secretary of state who urged its purchase.



Courtesy Ordway-Alaska Steamship Company



The photograph above shows one of the many fish traps in the streams of Alaska. This is one very common way of catching salmon. The drawing shows how the trap works. As the fish swim upstream, fences beneath the surface of the water guide them into the trap. Salmon will not swim downstream during a "run." They therefore proceed from enclosure to enclosure until they can go no farther. In the last enclosure they remain trapped until the fishermen come for them.

But Seward's investment was a wise one. Our guide tells us that many millions of dollars' worth of gold, copper, fish, and furs have been taken out of Alaska since we bought it.

What kind of climate is there along the coast? For two days our boat makes its way through the "inside passage," a channel between the mainland and hundreds of islands. The southern half of this channel lies along the coast of British Columbia.

Fortunately, the weather is clear as we make our way through the channel. But sometimes the fog is so thick that boats must anchor and wait for it to clear.

When we ask why this is so, Mr. Johnson tells us to look at our map. Off the coast is a warm current of water called the *Alaska Current*. As the westerly winds cross this current, they pick up heat and moisture. When the winds reach the land, the moisture may become fog if the land is quite cool. Or it may be dropped as rain.

While we are talking, clouds roll in from the sea and there is a heavy downpour of rain. But soon the sun is shining

again, and the clouds sweep eastward up over the frozen mountaintops, leaving a fresh blanket of snow on their peaks. Our guide tells us that we may expect showers along the coast almost every day during our visit to Alaska. The average annual rainfall here is more than 150 inches. Few places in the United States receive as much as fifty inches.

These winds warm the land, too. Mr. Johnson explains to us that this is why the winters are mild and the summers are cool here on the coast. The summer temperature seldom reaches eighty degrees, and the winter temperature averages about twenty-five degrees.

The heavy rainfall and the mild climate explain why all the mountainsides are covered with heavy stands of timber.

What is our first stop in Alaska? Soon we enter the harbor of Ketchikan—our first stop in Alaska. Ketchikan is built on the side of a steep mountain that slopes down to the bay. Part of the town is built out over the water on piling. Some streets are made of planks. Like most towns along the coast, it is an important salmon-canning port. We



The catch of salmon is taken from the traps by means of nets. As the nets are dragged to the deck of the boat, the fish are dumped into open bins. As soon as the bins become filled the boat dashes for the cannery, for there is no time to lose.

Courtesy Alaska Steamship Company

decide to leave our boat and visit a large canning factory, which has been built out over the water.

The story of salmon. On our way to the cannery, we learn that the most important industry of Alaska is fishing.

Most of the Alaskan canneries are built near the mouths of rivers. During the winter months the canneries are idle. But sometime in May, about a month before the canning season opens, Ketchikan begins to prepare for the busy season.



When we arrive, the season has begun. Many boats are crowding about the cannery, awaiting their turn to unload salmon. Other boats are on their way back to the salmon grounds near the mouth of the river.

What do we see in the cannery? This cannery at Ketchikan is owned by Mr. Johnson's company. He proudly shows us one of their new machines. It first cuts off the salmon's head and tail. Then the machine whirls the salmon on a large round drum. Knives and brushes take off the fins and scales. Another knife cuts open the salmon and scoops out the insides.

We see some workers packing salmon into cans. Other workers put the cans into huge steam boilers, where the cooking takes place. Then the cans are labeled, crated, and finally loaded into ships that carry them to distant ports.

Some of the canneries are ships. These

In some of the salmon canneries, machines do most of the work; in others, machines and hand labor prepare the salmon. With one pull of the lever, this cutting device divides a salmon into pieces ready for canning.



James Sawders

This view of Juneau is typical of many of the scenes we see in Alaska. The snow-covered peaks, the steep mountainsides with their evergreen mantles, the gold mines on the slopes, the buildings built out over the water, the fishing boats, and the salmon canneries beside the docks — all may be found at many points up and down the Alaskan coast. Juneau is the capital and chief city of Alaska

floating canneries anchor close to the fishing grounds. The cleaning, canning, labeling, and crating are all done aboard the ship.

Why is the cannery so busy now? Our guide tells us that the cannery we are visiting runs twenty-four hours a day. This is necessary, because here the season for salmon fishing is so short.

A salmon spends most of its life in the ocean. However, in the early spring and summer, it seeks the fresh-water stream in which it was born. Somewhere upstream, it lays its eggs.

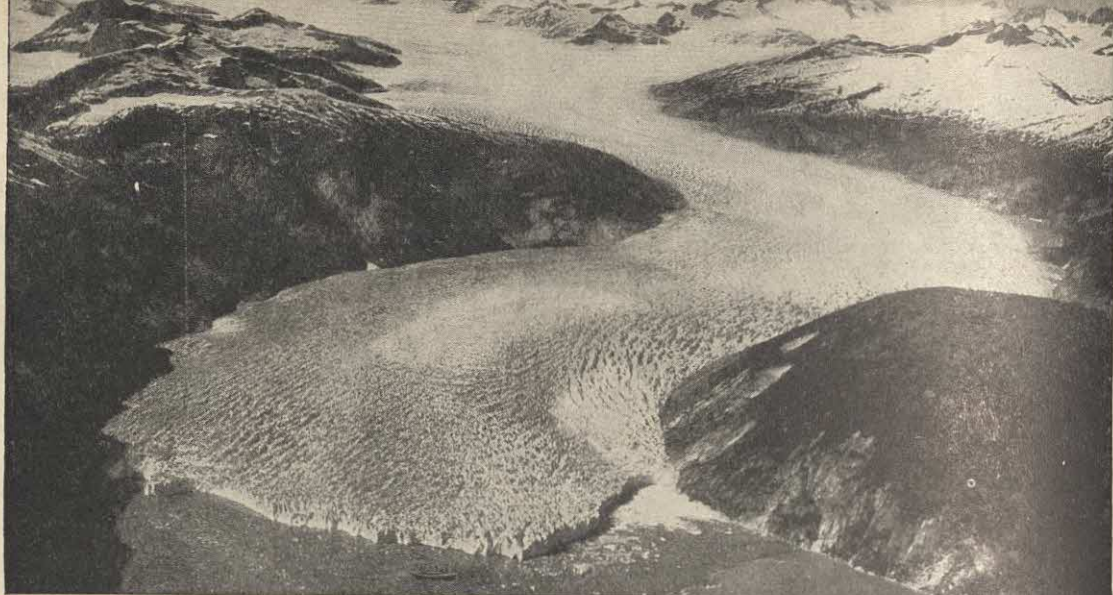
Right now the fishermen are out with every kind of net and trap to catch them. In about two months the salmon fishing season will end. But by that time many salmon will have found their way upstream.

Our guide says that more salmon is canned in Alaska than in any other part of the world. Millions of cases of canned salmon are exported to the United States and to several foreign countries each year.

Now we are sailing northward again. Our next stop will be Juneau (jōō'nō). Although this is one of the largest cities in Alaska, we learn that only about 5,000 people live here. Juneau is also the capital of Alaska.

How is Alaska governed? We see that the finest buildings in Juneau are government buildings where the legislature meets to make laws. Because Alaska is not a state but a territory, all the laws must be approved by the Congress at Washington.

Alaska sends one delegate to the House of Representatives at Washington, but



Courtesy United States Forest Service

In Alaska's high mountains the deep snow never melts entirely. Instead, it collects continually in the valleys until its great weight causes it to move very slowly down toward the sea. Once it is in the water, the front of the glacier gradually melts. Great pieces break off and drift away as icebergs. Notice how tiny the steamship appears next to the glacier in this picture.

he cannot vote on any legislation before Congress.

Many residents of the territory look forward to the time when Alaska becomes a state. Then Alaskans will elect their own governor and members of Congress.

From Juneau we sail for Seward. Not far from Juneau we pass Glacier Bay, which contains almost 2,000 square miles of glaciers and ice-covered peaks. This is the largest ice field in North America. At one point we see a huge glacier sliding down into the sea. As we pass it, we see a giant splash and then hear a roar like distant thunder, as an enormous chunk of ice breaks away from the glacier to become an iceberg.

At Seward, we learn that Mr. Johnson cannot go with us on our trip to the interior. We thank him for telling us so much about Alaska and board the Alaska Railroad train for Fairbanks. On the way to Fairbanks our train makes a stop at Anchorage, Alaska's largest

city and railway center. Many of the country's best automobile highways meet here, too. Although Anchorage is built at the edge of an arm of the sea, it has no harbor of its own. The Alaska Railroad connects Anchorage with the seaport towns of Seward and Whittier.

Why is Matanuska Valley important?

In a few hours our train enters the Matanuska Valley — one of the good farming regions in Alaska. We are surprised to see such fine farms, with herds of dairy cows and fields of alfalfa, grain, and potatoes. In the gardens there are vegetables of almost every kind, and even delicious strawberries!

Not long ago there were only a few people in this valley, but in 1935 the United States government helped many families move to this part of Alaska as pioneer farmers. Some of them moved back to the United States during the first hard years, but later many more people came. Today there are many pros-



Robinson Studios

The principal farming region of Alaska is beautiful Matanuska Valley. The climate here is more agreeable and better suited to farming than in certain parts of the United States. The temperature in winter seldom falls lower than ten degrees below, and the summers are mild and pleasant. The growing season lasts from early June to mid-September—long enough for a wide variety of crops, including wheat, oats, barley, alfalfa, and most kinds of common vegetables and berries.

perous farms in the Matanuska Valley.

Another good farming region is farther north in the Tanana (tä'nä·nä') River Valley. Of course, the growing season in all this region is very short. But the sun shines so long each day that the crops fairly "leap" out of the fertile soil.

We are now close to majestic Mt. McKinley—20,300 feet high. Mt. McKinley is the highest mountain on the continent of North America. Its top is perpetually capped with snow, but we cannot see the top because of clouds. On the sides of the peak are many glaciers, mov-

ing slowly down its steep slopes. There are thousands of such glaciers in Alaska.

In another few hours we are in Fairbanks. Here we board a sight-seeing bus. We see modern homes, schools, government buildings, and a busy airport. We also see Indians in overalls, trappers, miners, farmers, and lumbermen. Fairbanks was first settled during the gold rush, and gold mining is still the leading industry here. The city is an important distributing center for such supplies as food and mine and farm equipment.

Courtesy the Alaska Railroad

Gold mining is still an important industry in Alaska. Many different methods of mining are used, but one of the commonest is the method pictured here. A powerful stream of water washes out the soil and separates the gold from the gravel and rocks.





The lands and waters north of the Arctic Circle are known as the Arctic region. The sea, mostly covered by floating ice, is called the Arctic Ocean. What does most of the land of the Arctic region seem to be like? Are you surprised at the number of weather stations? Trace the explorers' routes.

prove worth developing, the village of Barrow will become the center of the oil-field operations.

Barrow used to be just an Eskimo settlement, visited by whalers once or twice a year. Later a government schoolteacher came to Barrow, and now, besides teaching school, he reports the weather by short-wave radio to the main Weather Bureau office at Anchorage every day.

Why are Arctic weather stations important? There are other weather stations in the far north besides the one at Barrow. Many of them are operated by schoolteachers. The weather reports that these men send in are very important. Scientists have found that a great deal of the weather changes of the Northern Hemisphere begin in the Arctic. Knowing weather conditions throughout the Arctic regions helps them forecast the weather elsewhere days ahead of time.

Weather stations in the Arctic may some day serve another purpose, too. The shortest air routes between some cities in the United States and others in Europe and Asia are over the Arctic. Some day planes may use these routes, and the pilots will need accurate weather reports.

What are these barren lands north of the Arctic Circle like? In the winter Barrow is a lonely spot. It is bitter cold, and for two months the sun does not

Four miles outside of Fairbanks we visit the University of Alaska—the northernmost college in North America. A broadcasting station near the city furnishes entertainment, weather reports, and news for the whole country. We pass a large airport and learn that Fairbanks is the hub of aviation for inland Alaska.

What lies north of Fairbanks? If we were to fly northwest from Fairbanks, in about three hours we would pass over 500 miles of some of the most barren land in all the world. We would fly over the Yukon, with its marshy meadows alive with mosquitoes. We should have to climb to 7,000 or 8,000 feet to get over the icy peaks and unknown valleys of the Brooks Range. North of the mountains we would glide down across an uninhabited coastal plain to sea level at Point Barrow, Alaska's "farthest north."

The village of Barrow has only about 350 inhabitants, but some day it may become an important, bustling town. The navy is now exploring oil fields in the vicinity of Barrow, and should they

shine at all. Nature's only lights are the moon and stars and the shimmering colors of the Northern Lights. The silent land is frozen hard, covered with a thick blanket of snow.

In summer the days lengthen; for more than eleven weeks the sun does not even set. The Arctic ice pack along the coast breaks up; the snow disappears, and the frozen soil thaws to a depth of six to ten inches. Buttercups, dandelions, cranberry flowers, and goldenrod spring up like magic. The Eskimos' herds of reindeer feed on the new summer grass. In the open waters off Barrow the Eskimos catch fish and hunt seal, whales, walrus, and polar bears. Inland they search for eggs of nesting birds.

Much of the land north of the Arctic Circle is similar to the area around Barrow. It is a treeless *tundra*. In the winter the cold freezes it solid. In the short summer the land thaws for a few inches, the flowers bloom, and the birds come back.

What are the United States and other countries doing to develop the regions north of the Arctic Circle? We have already heard a little about how the United States Navy is developing its oil reserve near Barrow. To the east of us in Canada, prospectors are finding uranium and other precious metals which may bring added settlers there. Almost across the pole from Point Barrow the Norwegians are mining coal from valuable deposits on their Spitzbergen Islands.

Perhaps the Russians have made the greatest strides in the development of the Arctic regions. They have built cities north of the Arctic Circle in order to

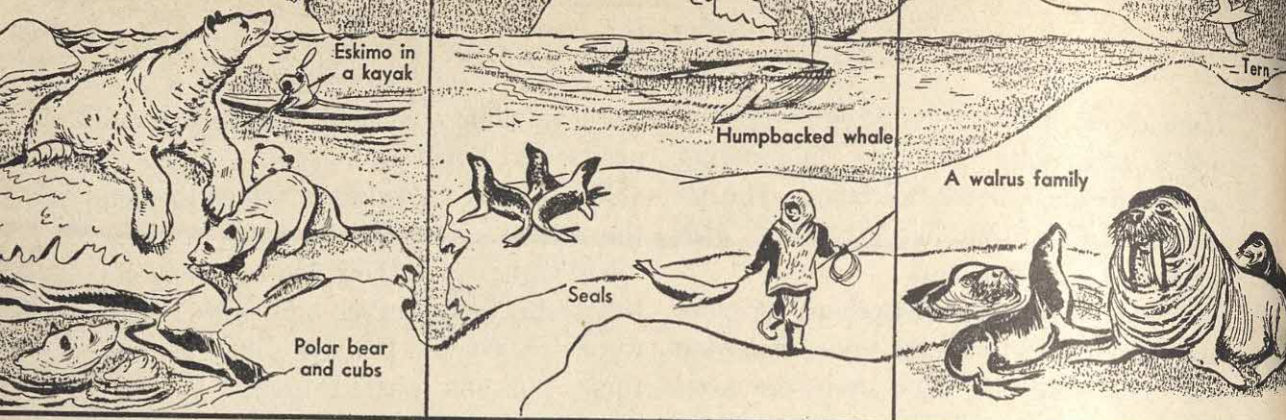
work valuable coal fields, phosphate deposits, and bauxite mines.

What famous explorers helped to open the Arctic? On April 6, 1909, six men relentlessly drove their dog teams across the Arctic wastes of ice and snow. They were dressed like Eskimos, in skins and furs. No one wasted breath in talk. These men—four Eskimos, one Negro, and one white man—had been traveling for days, stopping only to make observations, each time a little closer to their goal. Once more the leader, Commodore Robert E. Peary, gave the signal to stop the sleds. Once more he made observations. They were at the Pole at last! These six men were the first to reach the North Pole! Before them many others had tried and failed.

Peary had not won his great victory over the far north without many years of preparation. Eight times before he had tried to reach the northernmost point on earth. Each time he brought back many scientific notes.

Others, too, had tried to explore the Arctic, at the cost of many lives. Ever since Columbus' time sea captains, like Cartier and Hudson, had been looking for a "northwest passage" to Asia. It was Roald Amundsen, a Norwegian, who in 1906, after spending three long winters caught in the ice, finally sailed his ship along the Arctic coast of North America to the Pacific. This is not a very practical way of sailing to China!

Another famous Arctic explorer is Vilhjalmur Stefansson (stă'fäns·sön). He has helped to interest many people in the Arctic. He believes that the Arctic is a friendly place, a good spot for new colonies.



Among the many resources of the Arctic none are more useful to the inhabitants than its wild animals. The polar bears, seals, whales, walruses, and other creatures of the sea provide the Eskimos with most of their food and clothing. Blubber and fat are also used for fuel.

What is the future of the Arctic? The Arctic is not so grim and terrifying as it once was. The radio is helping those who live in isolated settlements. Each town has its sending and receiving set which serves as a newspaper and telephone. Even surgical operations have been performed by teachers or storekeepers as they listened to directions on the radio!

The airplane, too, has made life much easier. It is not only faster, but for long trips, a great deal cheaper than any other form of transportation. The airplane has made possible regular mail delivery and quick help in emergencies.

But those who go to the Arctic cannot expect to live as they could in Seattle, St. Louis, or Atlanta. They must be willing to live as the Arctic demands. They must accept the long winter nights and the long summer days. They must eat the foods which are available in the Arctic. They must wear clothes suitable for the climate. But most people are not anxious to give up the clothes, houses, and way of life which they have always known. Boom towns may grow as Arctic resources are developed, but most of this land will remain empty and

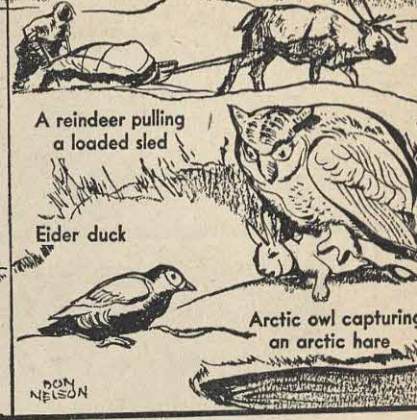
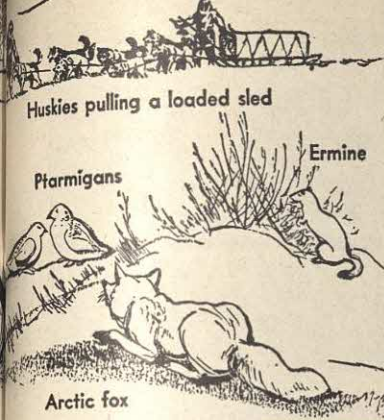
barren. Probably only those with adventurous spirits will go to live in the Arctic.

What caused many people to come to Alaska? Alaska's great wealth was unknown until 1897 when lone prospectors began to find rich deposits of gold in the mountains and river beds of Alaska. One gold rush followed another. Millions of dollars' worth of the shining metal were carried to the United States.

But today the lone miner is no more. He has been replaced by great mining companies, which must use thousands of dollars' worth of machinery and equipment to obtain the remaining gold.

Trapping and fur farming. Many men who work in the mines during the summer are trappers during the winter. It is during the winter that the animals' fur is thickest. But in the wilds of Alaska the fur-bearing animals are becoming scarce; so the business of fur farming here is growing steadily. Most of the fur farmers have mink and fox ranches. Fish and rabbits furnish food.

What is the climate like in the interior of Alaska? Our bus brings us back to our hotel in Fairbanks, where we spend the night. We are all surprised to find the weather so warm. The thermometer



Land animals are very useful to the Eskimos and Indians of the interior. Musk oxen provide milk, meat, and wool. Foxes, ermines, and many other animals are valued for their fur. Many of the fur garments worn in the United States are made from Arctic pelts.

registers ninety degrees. The climate of the interior of Alaska is much different from that along the coast. Here the rainfall is lighter. The weather is hotter in summer and colder in winter. It is hotter in summer because there are no ocean breezes to cool the land. It is colder in winter because there is no warm ocean current to heat the land. We remember, too, that great bodies of water do not become so cold or so warm as great land masses.

Why is Alaska known as "the land of the midnight sun"? At breakfast one of our party tells us of waking up during the night. It was so light outside that he imagined it must be time for breakfast. But when he looked at his watch, he found that it was just past midnight. Not until then did he remember that in June the short Arctic night of two hours is never dark, only dusk or twilight.

How do people live in the interior of Alaska? We decide to charter a plane and fly over the central plateau to the Seward Peninsula. After reaching the

western tip of the Seward Peninsula we fly over a tiny town named Wales. When our pilot tells us that this is an Eskimo village, we decide to make a landing.

What a reception we get! Everyone in the village is out to greet us. Then the American schoolteacher, Mr. Dawes, and his wife push through the ring of Eskimos and bid us welcome.

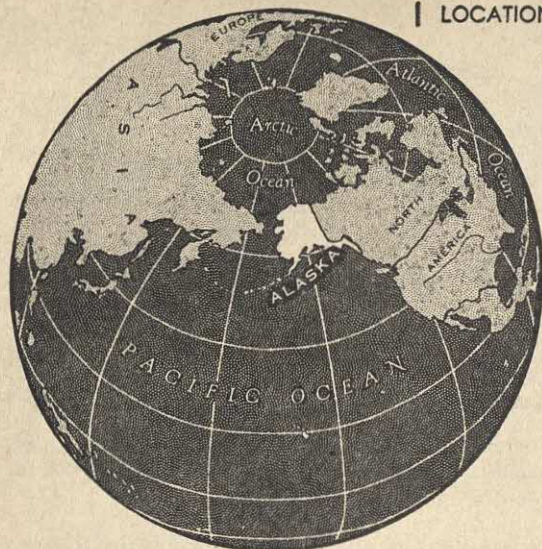
When we tell them that we have come to see how the Eskimos live, they quickly lead us back to the village. The first Eskimo home that we visit is a skin tent, just recently set up for the summer. Not



The most profitable occupation of the Eskimos is fur trapping. Here we see one trapper's catch of fox pelts.

James Sawyers

1 LOCATION

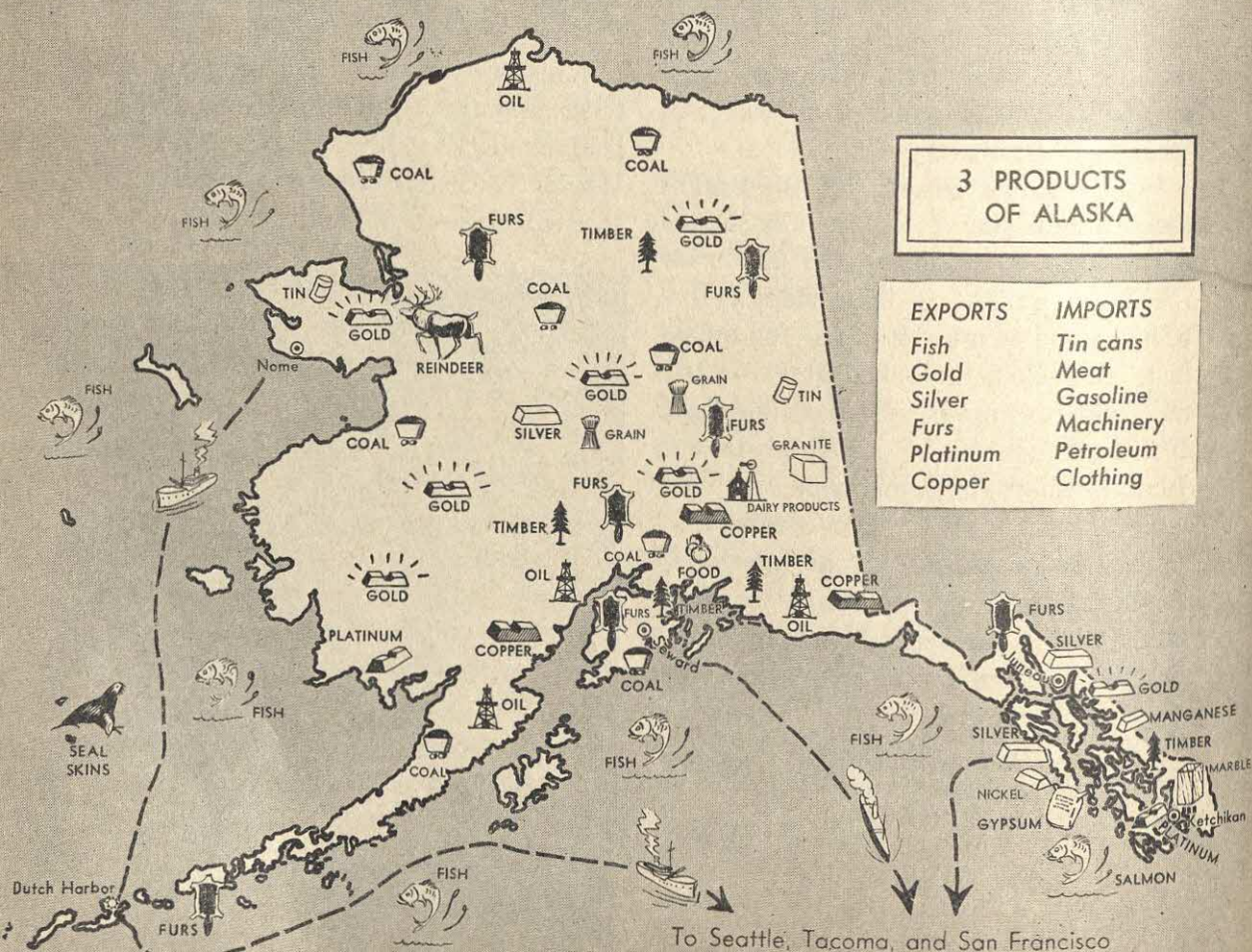


THE STORY OF ALASKA TOLD BY MAPS

1. **LOCATION.** Alaska faces Asia from the east, but the island of Attu, at the end of Alaska's Aleutian chain, is 800 miles farther west than the easternmost coast of Asia.

2. **SIZE COMPARISON.** Alaska contains more than one-half million square miles, making it about one-fifth the size of the United States. Yet Alaska has fewer inhabitants than Niagara Falls, N. Y.

3. **PRODUCTS OF ALASKA.** Most of the wealth is in the sea and under the ground. Fishing leads in value—yet it goes on only for a few months each year. Mining follows. Notice the variety of minerals found. Compare this map with others of Alaska on pages 294, 359, and 370.





Ewing Galloway

These Eskimos have killed a polar bear and are dragging it out onto the ice. After removing the skin and dividing up the carcass, they will paddle back to shore in their kayaks. These seal-skin boats have watertight hoods which lace around the paddler's waist. Such a boat can be completely upset without filling with water. Eskimo boys are taught to use the kayak at the early age of ten and soon become very skillful in handling it.

far away is a winter house still in use.

This house has only one room. It seems to be sunk down into the earth. It has been made of driftwood collected along the beach. Around the house, and over the roof, the owner has thrown dirt to keep out the fierce blasts of the winter gales. Inside is a crude little table on which stands a lamp that serves as a stove for cooking and heating, and provides a little light as well.

Our hosts tell us that the Eskimos were especially fortunate during the past winter. The seals were plentiful, and several walruses were taken, giving the villagers a fine supply of food. During the spring, the Eskimo hunters had killed a huge whale out in Bering Strait. For a whole week there had been feasting on whale meat. The whale also furnished oil valuable for use in lamps and for fuel.

Of course, the Eskimo women made good use of the sealskins and walrus hides. Clothing, boots, storage bags, and kayaks (kī'āks), or Eskimo canoes, were made of the sealskins. Some of the wal-

rus hides were cut up into long strips and used for rope. Walrus hides were also used to cover a large new boat called an *umiak* (ō' mī · āk). Ten or twelve people with all their household belongings can be carried in an umiak.

In the summer, the Eskimo children patrol the beach, gathering driftwood. Whole families move up the coast, where they catch wild birds at their nesting places and gather eggs from the nests.

Many other Eskimos are busy fishing, making clothing for the coming winter, and repairing sleds and hunting equipment. We are reminded that these people must do almost everything for themselves. They cannot telephone the grocery when food runs low, or the clothing store when clothes wear out, or a carpenter when the house needs repairing. No wonder they spend all their time just trying to keep alive.

Mr. Dawes tells us that later in the summer there will be a reindeer roundup here at Wales. We remember seeing some of these animals as we flew over



Ewing Galloway

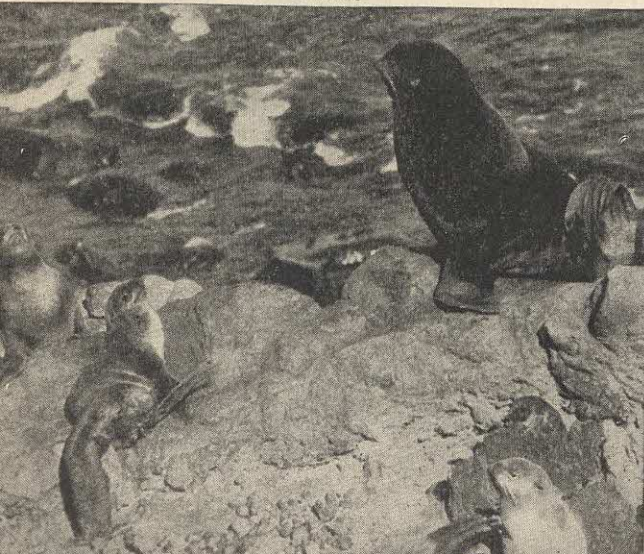
the Seward Peninsula; so we ask Mr. Dawes to tell us more about them.

Where did the reindeer come from? In 1891, explains Mr. Dawes, the United States Government feared that the Eskimos might not have enough food. Then the government began to import reindeer from Siberia. In the next ten years more than a thousand head were brought to Alaska. Now there are more than 600,000 reindeer here.

Of what value are the reindeer? The Eskimos use them as beasts of burden to pull sleds. But their chief value to the natives is their use as food and clothing. In addition to supplying the Eskimos with meat, the reindeer furnish milk, butter, and cheese, and also skins for making warm clothing.

There are great areas of wastelands, or tundras, from here on north to the Arctic Ocean. The tundras are covered

Courtesy Fouke Fur Company



In some parts of Alaska reindeer provide many things which Eskimos need. They furnish transportation; they supply milk. Their flesh is used for food; their skins are made into clothing; their bones are made into needles and tools.

with lichens and mosses. During the winter the reindeer dig the moss from under the snow. It makes fine feed for these animals. They can graze where other animals would soon starve.

We bid good-by to Mr. Dawes and his wife and to the Eskimos and climb back into our plane. Once in the air again we can look out across Bering Strait and see the eastern tip of Asia. Turning south, we refuel at Nome — a famous “boom town” back in the first days of the gold rush into Alaska. Nome is the principal city of western Alaska.

Where is the home of the fur seals? A little more than 500 miles south of Nome we fly over the Pribilof (prē-bē-lōf') Islands, the home of the fur seals. Each spring many thousands of seals come to these islands to give birth to their young. In the late fall, when the young are raised, all the seals slip into the Bering Sea and travel thousands of miles south to spend the winter in the warmer waters of the Pacific Ocean.

Some years ago our government discovered that fur traders were killing the seals too rapidly. So it took steps to control the killing of seals. Today the government owns all the seals on the Pribilof Islands. Each year government employees kill many of the young male seals and sell their hides for fur. More than 60,000 sealskins — worth several

The coasts and islands of Alaska are inhabited by thousands of seals. Here is a bull seal and three cows at the water's edge. Note the difference in size between the bull and the cows.

million dollars—are obtained from the Pribilof Islands each year.

From the rocky Pribilof Islands we turn eastward toward the mainland. To the south of us are the Aleutian Islands, extending like steppingstones from North America to Asia, our map shows us. There are thought to be as many as one hundred and fifty islands in the chain. An important stop for steamboats is Dutch Harbor. A United States Navy base is located there.

What do we want to remember about Alaska? Soon after reaching Seward we board a boat for far-off San Francisco. As we steam toward the Golden Gate, we remember that many treasures have been found in Alaska: gold, silver, copper, platinum, coal, oil, furs, timber, and rich farming land. But all these together do not equal the wealth to be found in the rivers and seas surrounding Alaska. The symbol of riches is salmon.

Since 1867, when we purchased Alaska from Russia for \$7,200,000, we have received many times the purchase price in salmon alone.

Much of the wealth of Alaska is still untouched. There are as yet but few farmers in fertile regions like the Matanuska and the Tanana river valleys. Many crops will grow in these areas despite the short growing season because there are so many extra hours of sunlight during the summer in the lands near the Arctic Circle.

We have learned that there are several different Alaskas: (1) the Alaska of the foggy, mild southern panhandle with its riches of salmon; (2) the Alaska of the interior with its continental climate; (3) the Alaska of the far north with its bleak tundra; (4) the Alaska of the barren, wind-swept Aleutian Islands.

We have learned something of how the people must live in the different parts of Alaska, for we have seen fishing towns, mining towns, bustling small cities, Eskimo villages, great Army airfields, and Navy bases.

We decide that Alaska is one of our last frontiers, and that people with the spirit of our pioneer forefathers will find a great future here

YOUR ACTIVITY PROGRAM

In this unit you have studied Alaska—our last frontier—and the Arctic, one of the world's last frontiers. These activities will help you to remember something about this interesting part of the world.

Solving the Problems

A. *Recognizing the Problems*

1. Write the problems which are presented in this unit in your notebook.
2. Which of the problems of this unit do you think is the most interesting? Why?

B. *Gaining the Understandings*

1. Answer as many of the following questions as you can.

Who was Captain Bering?

When did Russia first claim Alaska?

Why was Alaska called "Seward's icebox"?

What is the "inside passage"?

What effect does the Alaska Current have on the climate of Alaska's coast?

What is Ketchikan's most important product?

When are salmon canneries busy?

Is Alaska a state?

How are icebergs formed?

Why is Anchorage important?

When was the Matanuska Valley settled?

What is grown in the Matanuska Valley?

Why can crops ripen in places which have such a short growing season?

For what is Fairbanks noted?

What valuable resource is located near Barrow?

Of what value are weather reports from the Arctic stations?

What is winter in the Arctic like?

What is the Arctic summer like?

Who was Robert E. Peary?

Who first sailed through the "northwest passage"?

How have radios and airplanes helped those who live or work in the Arctic?

When was gold discovered in Alaska?

Why are fur farms increasing in number?

Why is the climate of the interior of Alaska so different from that of the coast?

What causes "the midnight sun"?

What is the winter house of an Eskimo like?

What are some of the uses Eskimos make of the whales they kill?

Why were the reindeer brought to Alaska?

What are reindeer used for?

What are the Pribilof Islands famous for?

Where are the Aleutian Islands?

2. Make an outline of the main understandings of this unit.

3. Be able to identify and explain all the following words:

tundra	kayak	umiak
northwest passage	continental climate	

4. Be able to locate the following on the map:

Alaska Current	Ketchikan
Anchorage	Mt. McKinley
Bering Sea	North Pole
Bering Strait	Point Barrow
Coast Range	Pribilof Islands
Dutch Harbor	Seward
Fairbanks	Seward Peninsula
Juneau	Tanana River

Enriching the Understandings

Do the activities below which seem most interesting to you.

1. Make a collection of pictures of Alaska. Try to find ones which show that Alaska is different from other countries. You might paste them in a scrapbook which you can decorate

with totem pole, Eskimo, or Alaskan Indian designs.

2. Do some research on the various methods of mining gold and give a class report on them. Illustrate with diagrams on the blackboard, or with pictures.

3. Find out something about the different kinds of salmon and which are considered the best for eating.

4. Draw a cross-section diagram of a glacier and show how it forms and moves. Use reference books to get this information.

5. See how much you can learn about the settlement of the Matanuska Valley. Compare the valley as it was a few years after settlement was begun with it as it is today.

6. Collect clippings of articles appearing in newspapers and magazines about the Arctic.

7. Read some books on Arctic exploration. Draw a map of some of the famous journeys.

8. Pretend you are equipping yourself for a journey in the Arctic, and make a list of the supplies you will need.

9. Do some more research on the way the Eskimos live. Give a report on some of the ways they have learned to live in their environment.

10. Seals are very interesting animals, with personalities all their own. If you are near a zoo, go and watch the seals some time. If you are not near a zoo, read something about seals.

Applying Your Knowledge

Write a short paper on one of these topics:

Why Alaska Will Grow and Develop

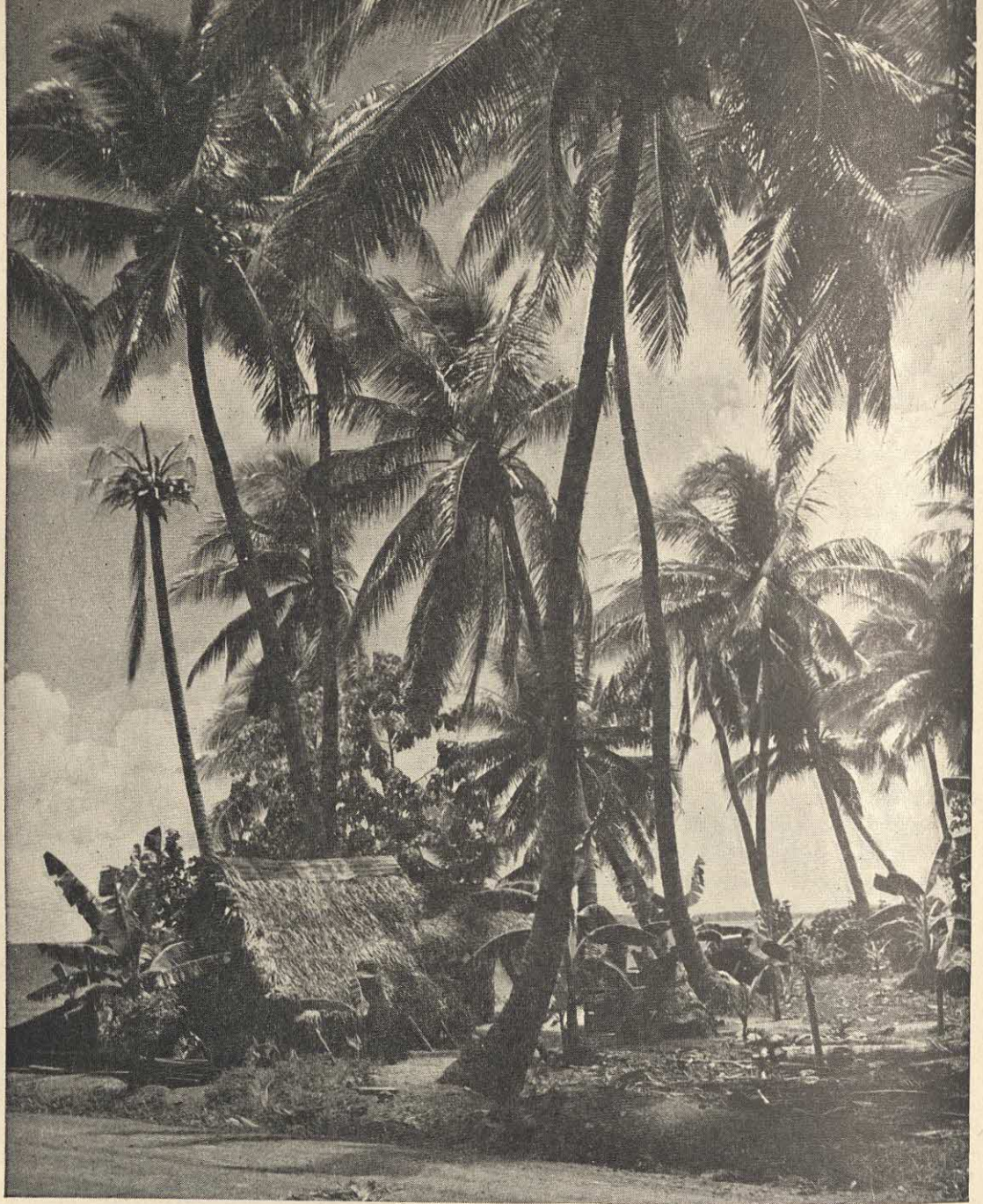
Why Alaska Probably Will Not Develop
Much More

Be sure to include something about the following points, as well as any others you can think of: climate, resources, transportation, Eskimos and Indians, cities, location.

Forming Opinions and Attitudes

Alaska would like to become a state and have more of a share in her own government and that of the United States. Many of the people of continental United States feel that Alaska is not yet ready to become a state. Others think that we should have no states which are so far away from the other forty-eight. What do you think about this problem?

OUR
PACIFIC
NEIGHBORS



Ewing Galloway

Scattered over the broad surface of the Pacific Ocean are thousands of islands, some too small and barren for human habitation, others very large and densely populated. On most of these Pacific islands the coconut palm is an ever-present landmark. This coconut palm is said to have more uses than any other tree.



Erwing Galloway

In the past few years new schools have been opened on many a Pacific island where schools for natives had never been before. This one is on the island of Guam—a possession of the United States.

17. *The Great Ocean and Its Islands*

Now our ship steams out of San Francisco Bay, passing between the rocky headlands of the Golden Gate. High overhead we see the *Golden Gate Bridge*, the longest single-span suspension bridge in the world. At last the fog which has hung over the region during the early hours of the day begins to lift, and before us lies the tremendous expanse of the Pacific.

We shall travel about four and one half days without sighting land. Our first stop will be at the Hawaiian Islands, 2,100 miles southwest of San Francisco. Later we shall visit New Zealand, Australia, the East Indies, the Philippines, one or two smaller islands, and Japan.

Why are we interested in learning more about the Pacific? Over 100 years

ago there were New Englanders who knew more about the Pacific than we know about our own back yards. They hunted whales from the Bering Sea to Antarctica. They drove their Clippers, under full sail, around the Horn and across the sea to far-off China. They visited many a Pacific isle to take on fresh water or to trade with the natives.

But there came a time when most Americans forgot about the Pacific and its islands and its people. We had many things to do at home. We were busy building our nation—extending it across the mountains and plains, making new cities, digging new mines, constructing new railroads. We didn't have time to think much about the Pacific.

Two wars helped to make Americans

interested in the Pacific again. The first was the Spanish-American War of 1898. After defeating the Spaniards we took over the Philippines and a few other islands from Spain. A little later the Hawaiian Islands became a territory of the United States. But after that most Americans forgot about the Pacific once more.

World War II made every American turn to his atlas in order to learn something about the Pacific. At the end of the war Japan had been driven from three large groups of islands scattered over 2,000,000 square miles of the Pacific. These islands were placed under our control by the United Nations.

Our schools began to teach more about the Pacific and its islands. American universities and museums sent new expeditions to study the natives and the plants and animals of the islands. New schools were started for native children. And so many American ships began to sail the Pacific that some people called it an American lake.

It is important for us to learn all we can about the Pacific because of our country's new responsibilities there.

How large is the Pacific Ocean? Many of us are today having our first glimpse of this immense body of water, but we shall be well acquainted with it before we see the United States again. We ask the captain of our ship to show us a map, so that we can get a clear picture of the size of the ocean and of the location of the places we are to visit.

In the chartroom he shows us an immense map. We see that the Pacific Ocean is the largest body of water on the earth. It is so huge that it covers

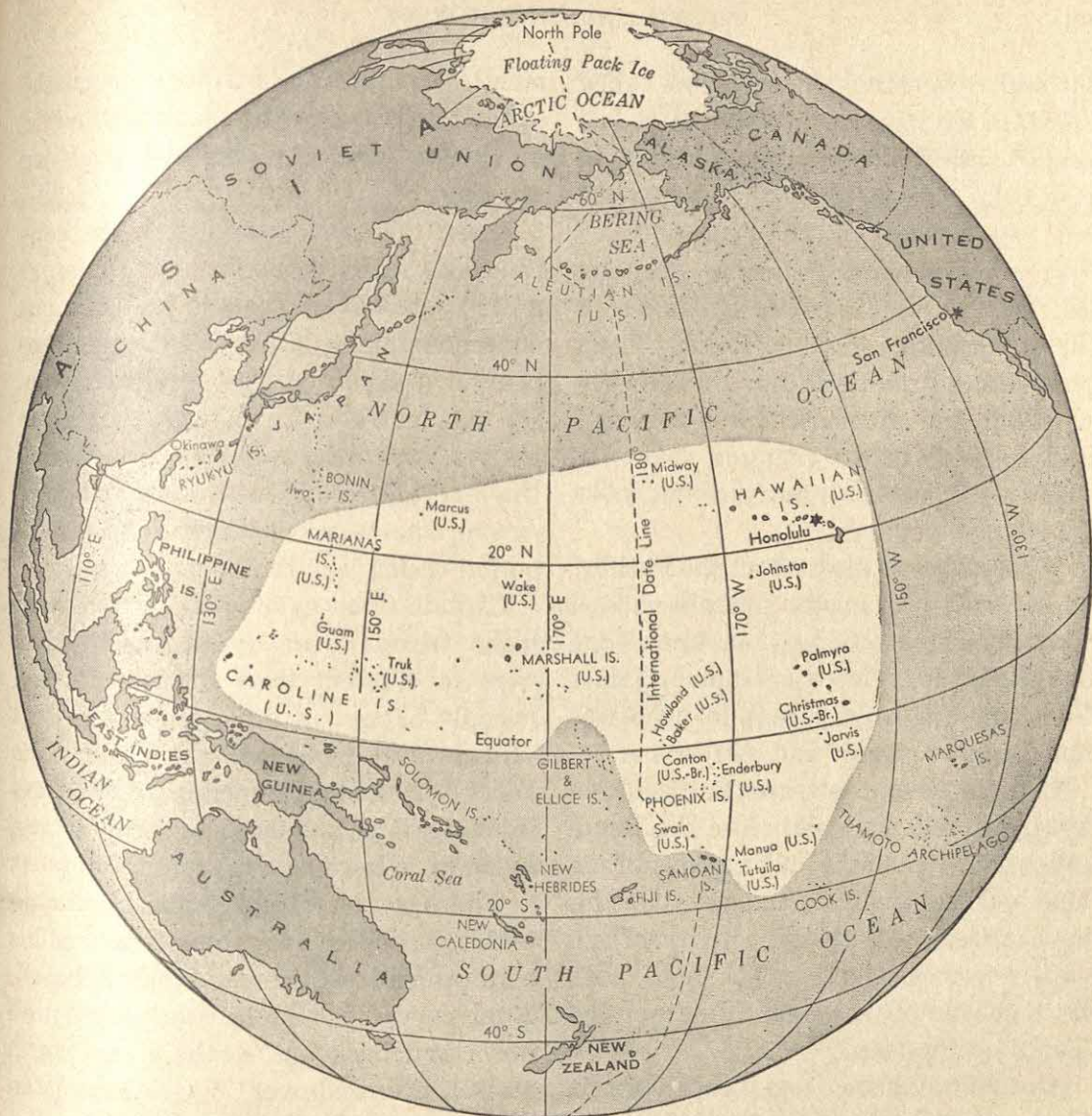
about a third of the earth's surface, and its area is larger than that of all the land put together. Along the equator, where it is widest, we should have to travel more than 10,000 miles to cross it.

Where are the islands of the Pacific? In the northern part of the Pacific Ocean there are very few islands, but farther south there are thousands upon thousands of them. Some of these islands are large. New Guinea in the East Indies has a larger area than Texas. Many are so small that they look like dots on the map, and many, many more are so tiny that they are not shown at all.

How were the islands formed? As we thank the captain for showing us the map, he points out something to us. "Have you noticed," he asks, "how the islands are grouped together?" We look again and discover that most of these island groups, or *archipelagoes*, are composed of several islands lying more or less in a row. We see, too, that many of these rows of islands follow roughly the same direction, running from south-east to northwest.

The captain adds, "Did you ever try to imagine what the bottom of the ocean looks like? If we had a relief map of the ocean floor, we should see that it looks very much like the land areas of the world. There are plains and valleys and hills and ranges of mountains."

From the captain's account we realize that most islands are really the tops of ocean-floor mountains. In those parts of the ocean where there are no islands we know that either the ocean floor is smoother or the water is so deep that the mountain peaks do not reach the surface.



Before World War II, we controlled only a few islands in the Pacific—the Hawaiian Islands and a few others. Since the war, we have been granted control of three large groups—the Marianas, Marshalls, and Carolines, all of which had been governed by Japan. They are now called the Territory of the Pacific. Our possessions in the Pacific are shown in the white area of the map.

PACIFIC EXPLORATIONS

A naval officer on board, Lieutenant Driscoll, tells us, "The first European to see the Pacific from the east was Balboa, who crossed the isthmus of Panama in 1513. From a mountain peak far inland he saw this great ocean for the first time.

When other explorers heard of this discovery, they began to seek a water pas-

sage to the Pacific. Then the king of Spain commissioned Ferdinand Magellan to look for a route around South America to the Indies.

How was the Pacific named? Lieutenant Driscoll tells us how Magellan's fleet encountered terrific storms as it rounded South America through the nar-

row and treacherous passage now called the *Strait of Magellan*. When he at last escaped into the open ocean, he thought it so calm and pleasant that he named it *El Mar Pacífico*, or the "Peaceful Sea."

From Lieutenant Driscoll's story we see that it was Magellan who gave us our first knowledge of the Pacific. Later many other explorers from Europe ventured out, and discoveries came thick and fast for more than a hundred years. In our library there are many thrilling books about these voyages.

Who taught us most about the Pacific? There was one man who probably added more than any other to our knowledge of the Pacific. This was Captain James Cook, an English sea captain, who was noted as a navigator and astronomer.

Captain Cook first saw the Pacific in 1769, just a few years before the Revolutionary War broke out between England and the American colonies. On this voyage Cook was taking a party of scientists from England to Tahiti to make astronomical observations. Can you find Tahiti on the map?

On the way home from Tahiti Captain Cook determined to find out if there was any truth in the story of a great continent supposed to be located in the South Pacific. It even had a name, *Terra Australis*, which means "southern land." In his ship, *Endeavor*, on this first of his three long voyages through the Pacific, he thoroughly investigated and charted each small island that he passed.

First he explored and surveyed the Society Islands, close to Tahiti. Then, after following a wandering course on which he found many new islands, he came to New Zealand. He spent six

months exploring and mapping the coasts of the two islands, after planting the flag of England and claiming the land for his king.

When this task was finished, he continued his search. About sixteen hundred miles west of New Zealand he came upon a mountainous coast and dropped anchor in a sheltered bay. But when he set out for shore in a small boat, the natives ran to the water's edge, making threatening gestures with their weapons. Among the weapons Captain Cook reported seeing was the boomerang.

Captain Cook gave up the attempt to make friends with these people, they were so different from the curious and friendly natives of other islands he had visited. But he called the coast *New South Wales*, and claimed it for the English king. This land has had many names, but now it is called *Australia*.

The next year Cook embarked again—this time with two ships—making his way around Africa to New Zealand. From New Zealand he worked up and down and back and forth in the South Pacific, over and over. Twice he crossed the Antarctic Circle.

During this time he made his headquarters at Tahiti, where he returned occasionally for supplies and repairs. On this voyage Captain Cook explored the Marquesas, the Tongas, and the New Hebrides; and he made new discoveries of New Caledonia, Norfolk Island, and the Isle of Pines. How many of these places do you find on the map?

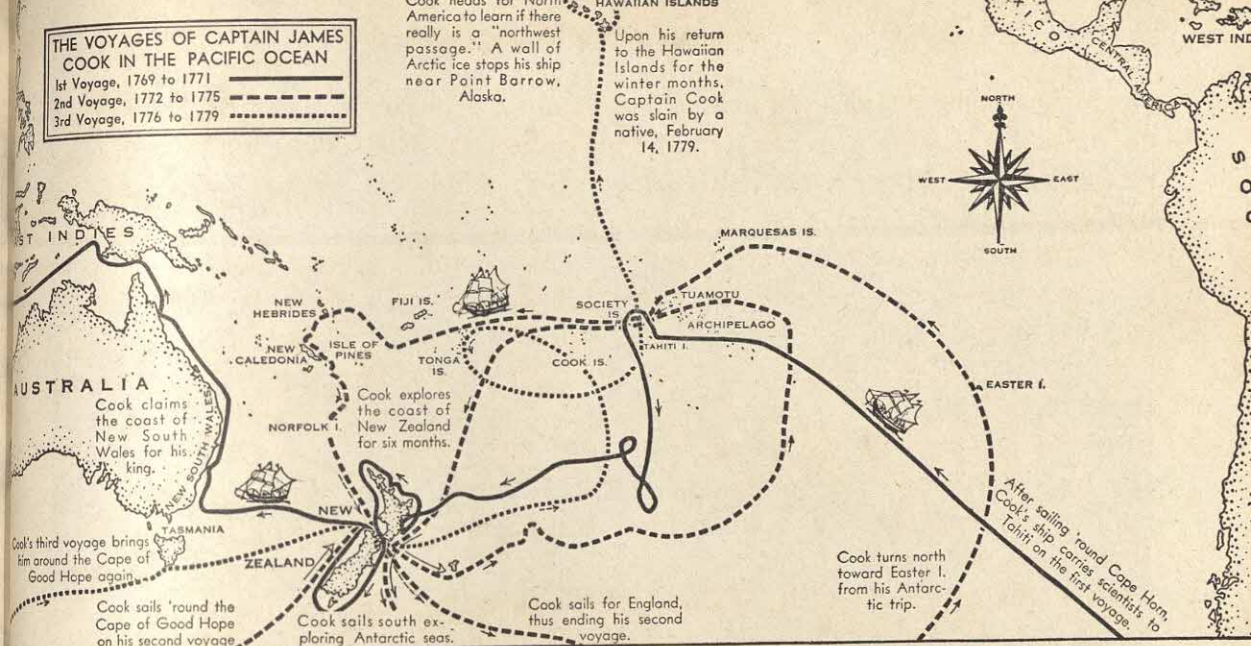
A stop of great interest was made at Easter Island, over toward Chile. There he reported seeing hundreds of enormous stone figures, thirty to sixty feet tall,

THE VOYAGES OF CAPTAIN JAMES COOK IN THE PACIFIC OCEAN

1st Voyage, 1769 to 1771
2nd Voyage, 1772 to 1775
3rd Voyage, 1776 to 1779

Cook needs to learn if there really is a "northwest passage." A wall of Arctic ice stops his ship near Point Barrow, Alaska.

Upon his return to the Hawaiian Islands for the winter months, Captain Cook was slain by a native, February 14, 1779.



Do you see why Captain Cook was able to contribute so much to our knowledge of the Pacific? Make a list of the islands he touched upon or explored. Trace his journeys on the map. On his second voyage he crossed and recrossed his own path around New Zealand. Can you follow this second journey by matching the different kinds of arrows which show his way?

standing in rows on the hillsides. Even the natives did not know who made these strange-looking statues, and scientists have puzzled over them ever since.

Before giving up the search for *Terra Australis*, Captain Cook doubled back on his course and went over into the South Atlantic. Finally he proved to his complete satisfaction that no such continent existed in either ocean.

What else did Captain Cook's voyage teach us? Another remarkable thing was that Captain Cook returned from this amazing voyage with the loss of but a single man from sickness. This was the first long sea voyage up to that time which had not lost great numbers of men because of *scurvy*, a disease due to lack of vitamin C. In those days sailors had very little to eat but salt meat, which is not good for a steady diet. Cook was more fortunate because he was able to stop frequently at tropical islands where

he got fresh fruits and vegetables. Do you not think it might be correct to say that Captain Cook was one of the first to recognize the value of proper food?

What was Captain Cook's last voyage? A year later Captain Cook made another long voyage, exploring along the west coast of North America up to the Bering Strait in search of the "Northwest Passage."

On his return south he stopped to explore the Hawaiian Islands. He made a considerable stay, writing an account of their size and importance in his journal. Unfortunately, this was Captain Cook's last exploration, for he was killed by some natives in a dispute over a stolen boat.

We should remember Captain Cook as one of the world's great explorers. His journals describing his voyages, the islands he visited, and the people he saw are of great value even today.



Underwood & Underwood

The natives of Hawaii are very fond of water sports. One of their favorite amusements is surf riding. First they paddle out a distance from land. Then they come rushing back to shore on the crest of a high wave. It takes great skill to keep one's balance and avoid being thrown off into the surf.

THE HAWAIIAN ISLANDS—PARADISE OF THE PACIFIC

Today we are up early—in fact before five o'clock—for we want to be on deck for our arrival at Honolulu, the capital of the Hawaiian Islands. After four and one half days on the ocean it is very exciting to wake up at sunrise to watch an island rise out of the sea.

As we come on deck, the air that sweeps across the ship is warm but bracing. Tiny flying fish are leaping from our bow wave and skittering over the surface. Almost everyone tries to find a place on the starboard rail to catch a first glimpse of the island of Oahu and the city of Honolulu where we are going to land.

It is still early when we hear a cry, "Diamond Head! I see Diamond Head." For several minutes we can see nothing but a gray bank of clouds. Then we, too, make out a point of land rising from the sea. It is Diamond Head, an extinct volcano whose green mass has

been a landmark for navigators since the days of Captain Cook.

Why are the Hawaiian Islands called the "crossroads of the Pacific"? A glance at our maps shows us that the islands are located about a third of the distance between North America and Asia. They are also on the route between our continent and Australia. This makes the islands a natural stopping place for both planes and ships that cross the Pacific. Here they can take on fuel and supplies for the remainder of the long journey. Here too is a relay point for cable and radio messages. No wonder the islands are called the "crossroads of the Pacific."

What may we expect to find of interest on our visit to the Hawaiian Islands? "I've lived on the islands for over fifty years," a fellow passenger tells us, "and never a week goes by but what I learn something new and wonderful about



THE STORY BEHIND YOUR SUGAR BOWL

The soil and climate of Hawaii are ideal for the growing of sugar cane, so with the help of imported labor this has become the leading industry of these islands. The cane stalks often grow as much as twenty feet tall, and bear slender leaves three to five feet long. These leaves are removed either by burning or by stripping. After the stalks have been cut, they are taken to near-by sugar mills and crushed between big steel rolls. The juice is then boiled down into "raw sugar" and shipped in bags to refineries in the United States. There it is refined into the white and brown sugar we use in our food.

*Photograph courtesy California and Hawaiian
Sugar Refining Corporation, Ltd.*

them. In the first place there are many islands in the group, but only eight of them are inhabited. The largest island is named Hawaii, and the one with the greatest population is Oahu, where we are going to land.

"You will find the climate exactly right. As a matter of fact the native Hawaiians didn't even have a word for weather. They just never thought to talk about it. If you look at your maps you will see that the islands are in the equatorial belt. But with water on all sides of us we have a pleasant marine climate. The trade winds off the ocean keep the temperature at about 78° in the summer and 70° in the winter.

"These trade winds are very valuable. They not only keep us cool in summer, but they also bring us our rain. They blow out of the northeast, and so the northern and eastern sides of the islands get a great deal of rain—as much as 250

inches in places. The southern sides of the islands are quite dry. If we want to grow anything there, we have to irrigate.

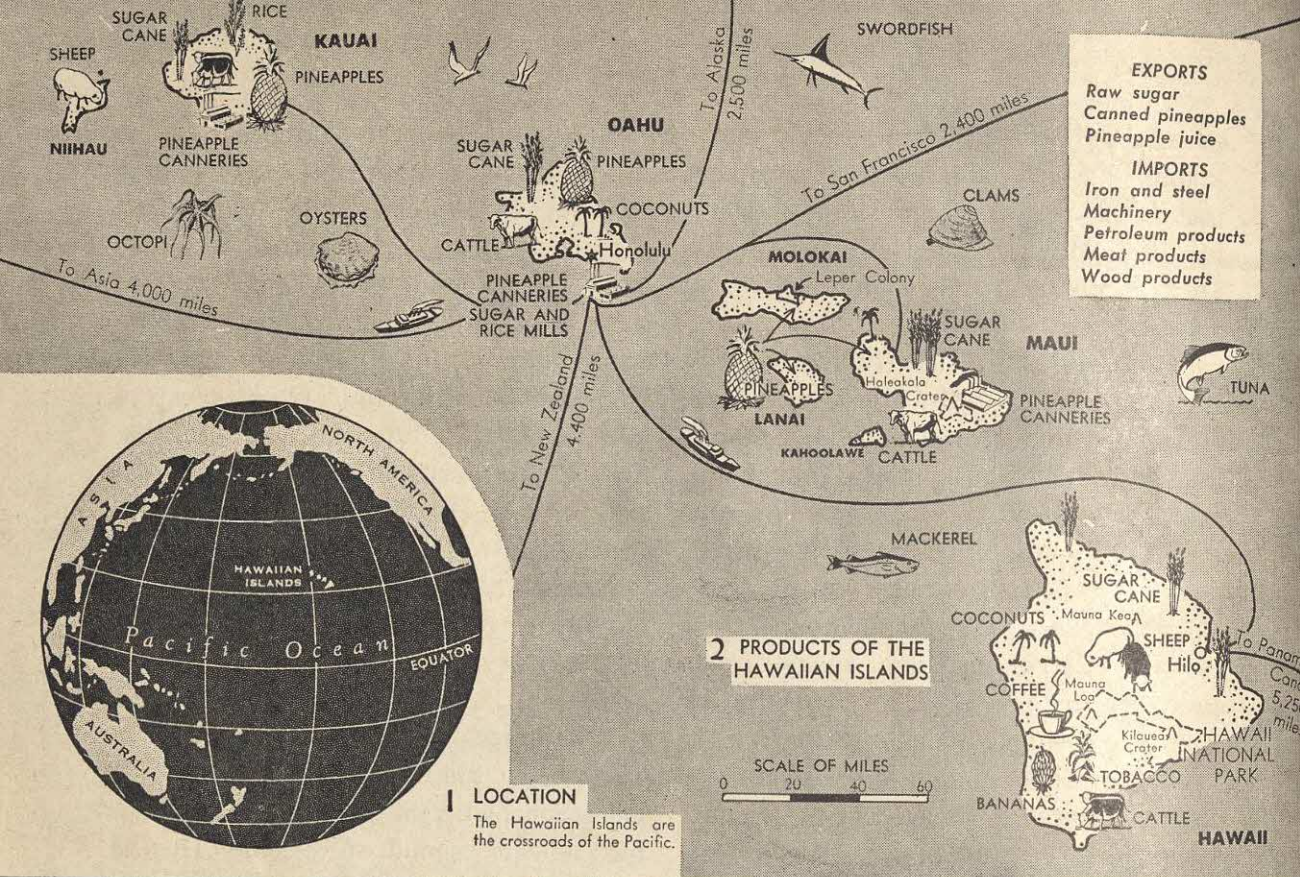
"You are going to have an exciting time—forests of ferns, surfboard riders, strange flowers, drinking fountains with pineapple juice instead of water—ah, I wish I had it all to see again for the first time. Perhaps the most unusual sight will be the volcanoes. Remember, these islands are the tops of tremendous volcanoes. Most of them are long ago dead, but two are still alive. Perhaps you will be lucky enough to see one in action."

What interesting sights do we see in Honolulu? Ship day in Honolulu is a gala event, with the sound of bands playing and eager shouts of welcome. Dozens of canoes swarm about our ship, and native boys dive for coins tossed by the passengers. We are each given a beauti-

Honolulu is one of the busiest ports in the Pacific. Nearly all the ship routes between the United States and Asia make use of its fine natural harbor. Seldom a day passes when one or more ocean liners or freighters do not tie up at the long piers to discharge and take on passengers and cargo.

Acme

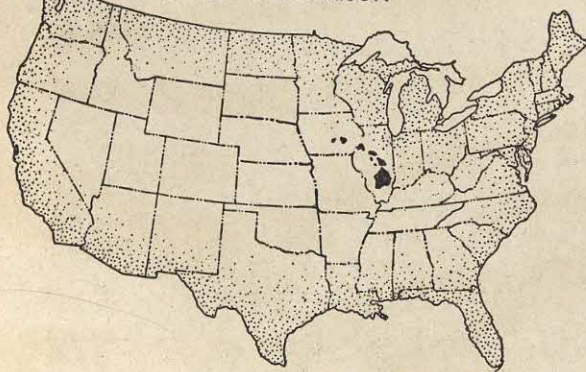




THE STORY OF THE HAWAIIAN ISLANDS TOLD BY MAPS AND DIAGRAMS

1. **LOCATION.** Name some of the "roads" that cross at the Hawaiian Islands. 2. **PRODUCTS.** Do these islands have many kinds of products? 3. **SIZE COMPARISON.** The Hawaiian Islands have an area a little smaller than New Jersey. 4. **WHERE THE RAIN FALLS.** When the trade winds hit the mountains, they carry the clouds upwards into cooler air, thus causing rainfall; and having crossed the mountains, most of their moisture is gone. 5. **WINDS OF THE PACIFIC.** Follow the arrows at the left, starting with the rising warm air at the equator. See how the earth's winds are set in motion?

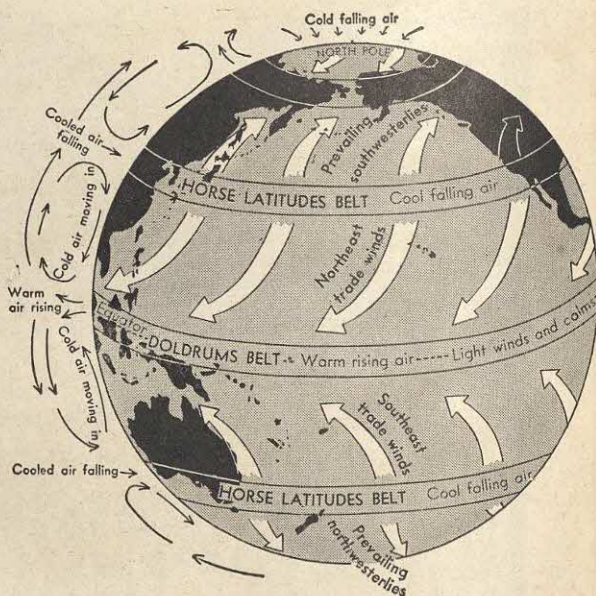
3 SIZE COMPARISON



4 WHERE THE RAIN FALLS



5 WINDS OF THE PACIFIC



ful garland of fragrant flowers to wear about our necks. These garlands are called leis (lā'ēz). Now the band slips into the familiar strains of "Aloha Oe" (ä-lō'hä ö'ē), the lovely song of welcome which means "Love to You." This song was written by the last native ruler of the islands.

On our sight-seeing drive we pass a great variety of smart shops and handsome public buildings. Honolulu has many churches, excellent schools, museums, and a large university. Everything is clean and sparkling in the bright sun, so different from the smoky atmosphere of many cities at home.

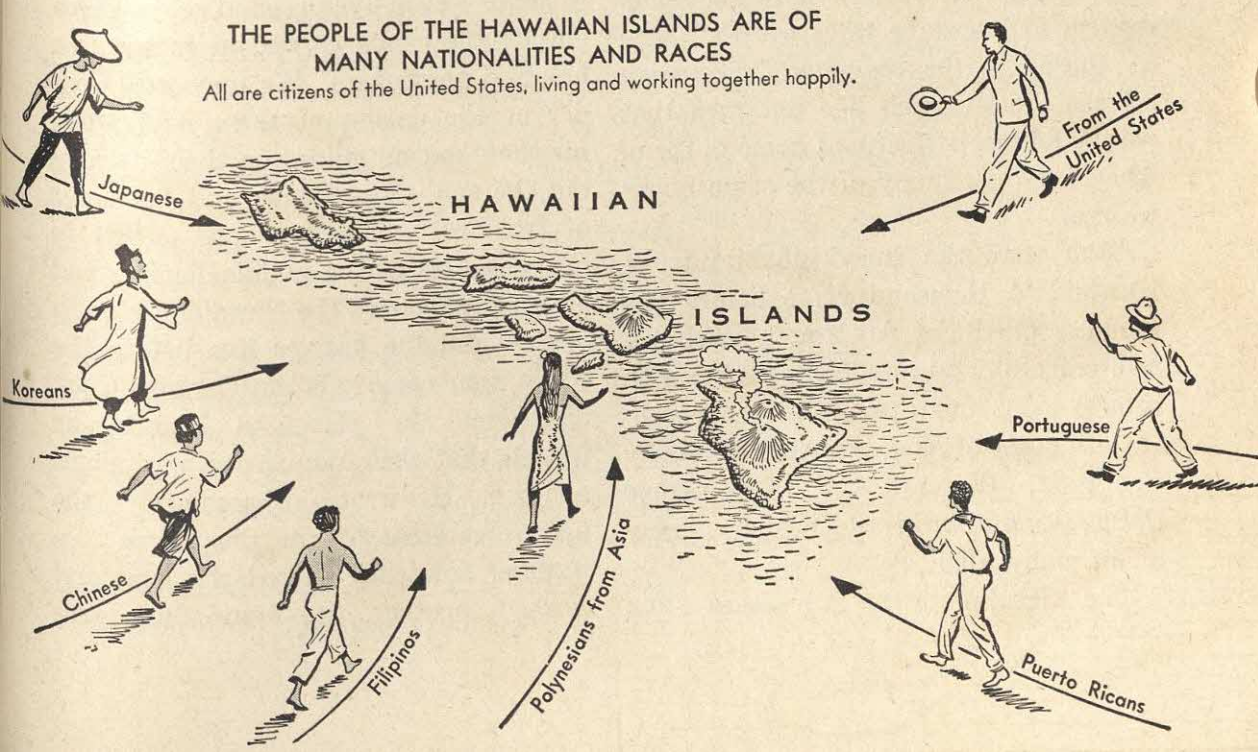
In the residence districts every house has a broad veranda and colorful gardens full of unfamiliar flowers. We learn that the flowers are hibiscus, bougainvillea, night-blooming cereus, and other *exotic* plants.

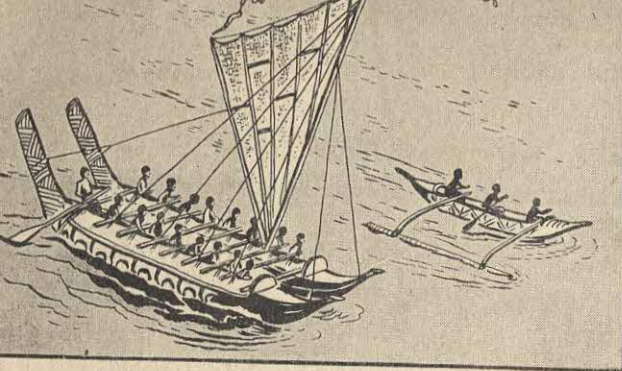
Now we are on a broad boulevard along the shore, passing some fine hotels

and Waikiki (wī-kē-kē') Beach, the famous tourist play spot. To our right a strip of white sand, dotted with gay parasols, curves around a peaceful blue bay. Swimming here is excellent, for the bay is protected from heavy surf by a coral reef some distance offshore. We stop for a few minutes to watch some bronze-skinned Hawaiian boys riding their surf boards.

What people live on the Hawaiian Islands? As we drive along, we are much interested in watching the people. There are Japanese, Chinese, Filipinos, brown-skinned Hawaiians, whites from Europe or America, and all kinds of mixtures of these groups.

Our guide tells us that one of the most interesting things about life in Hawaii is this mixture of peoples. The population is made up of immigrants from many far-distant parts of the world. Here they live and work peacefully together without race feeling.





In their outriggers and double canoes the Polynesians traveled long distances across the vast Pacific.

The most interesting people on the island are the native Hawaiians. They are great swimmers and fishermen. Our guide says that much of Hawaii's charm is due to these natives. Their music, their sports, their festivities, words from their language—all are woven into the many pleasant customs followed on the islands.

Our guide reminds us that we must be sure to think of Honolulu as an American city. The people of Hawaii, no matter where their parents may have been born, are citizens of the United States just as we are. But they do not have the right to vote for president or for their own governor. They use American money, and postage rates are the same as those on the mainland. Hawaiian schools are so much like our own that we should feel perfectly at home in them. They even use many of the same books we use.

Who were the early inhabitants of Hawaii? A thousand years before Columbus sailed the Atlantic a group of tall, graceful, and intelligent people with bronze skins migrated from the southeastern coast of Asia, perhaps the Malay Peninsula. We now call these people *Polynesians*, a name which means "people of many islands."

The migration of the Polynesians from

Asia to the islands of the Pacific is one of the wonders of history. These people have been called the "Vikings of the Pacific," but their feat was far more amazing than the Viking voyages. From island to island the Polynesians slowly spread farther and farther westward across the ocean, carrying with them their families and a few possessions, traveling in craft far smaller and frailer than the Viking ships. Their boats were, in fact, merely canoes, each hollowed out of a single great log. For power each canoe had a number of strong paddlers, and a sail made of leaves woven into a large mat. To prevent capsizing there was a sort of pontoon, or float, alongside. This was called an *outrigger*.

Sometimes two canoes were joined together with a deck, and the deck roofed over. On these decks rode the women and children, the cooking pots, food and weapons—even live pigs and goats. Often one double canoe carried as many as a hundred passengers. We may well wonder at the daring of these navigators, for they had no guides on their journey but the sun, moon, stars, and the flight of sea birds. These people settled in many islands of the middle Pacific, and eventually reached the Hawaiian Islands.

How did the natives live before the white men came? When Captain Cook discovered the Hawaiian Islands, he judged that their population was about 200,000. He wrote an account of the happy, carefree life of the people, describing how they shared the land and worked together. He found them gen-

erous and hospitable, glad to offer help to anyone in trouble.

The Hawaii found by Captain Cook could truly be called "the Paradise of the Pacific." The needs of the people were simple. Fish were plentiful, and fishing was fun. Nature herself supplied bananas, breadfruit, coconuts, and many other foods. The chief food cultivated was *taro* (tä'rō), a root plant. This thick root was made into a paste called *poi* (pō'ē), which is still eaten on special occasions.

Who were the first white settlers? In the years following Captain Cook's discovery, other explorers visited the islands. Whaling ships from New England began to stop for supplies or to make repairs in the sheltered bays. The first white settlers were sailors who left their whaling ships and remained behind to enjoy the easy and comfortable life. Many of them took native wives. Later these sailors became traders when other ships stopped for supplies.

What did the missionaries do for Hawaii? In 1820 a group of missionaries from New England sailed around Cape Horn to bring Christianity and education to the Hawaiians. They built a little town on the island of Hawaii. "I think it's interesting," adds our guide, "to realize that there was a thriving American community over 2,000 miles west of California even before Americans had crossed the plains to settle in California."

The missionaries soon converted the Hawaiians to Christianity and then set about to educate them. They made a special twelve-letter alphabet for the Hawaiians and taught them to read and write their own language as well as Eng-

lish. Books and newspapers, the first to be published west of the Rocky Mountains, were issued in the Hawaiian language. Many of Hawaii's leaders are descendants of these missionaries.

How did the Hawaiian Islands become a territory of the United States? As the years passed, more and more people settled on the islands. Many Americans, Englishmen, and Frenchmen came to raise sugar in the warm fertile valleys. Other people swarmed in from Japan, China, Korea, Spain, Portugal, and the Philippine Islands to work in the sugar fields and on the fishing fleets.

For a long time the Americans and the native kings got along together very well. People from the United States helped to write a Hawaiian constitution. They advised the king on foreign affairs and other matters. But finally a queen came to the throne who wished to change the government. The Americans revolted. First they asked the United States to *annex* the islands. When our government refused, they set up a Republic of Hawaii. Finally, in 1898, the islands were annexed and two years later became a territory of the United States, known as the *Territory of Hawaii*.

Hawaii's territorial government is headed by a governor appointed by the president of the United States. The people elect a legislature which sends a delegate to Congress. The delegate can address Congress on Hawaiian affairs, but he has no vote.

Most of the people of Hawaii do not wish to have their islands remain a territory. They hope that someday soon they will be admitted to the Union as a state.

A PLANE TRIP OVER THE ISLANDS

Today we are going by plane to see some of the other islands in the Hawaiian chain. From the air our bird's-eye view shows us their scenic splendor as it can never be seen from the ground.

Along the coast we can see that the mountains rise straight up from the ocean. Only occasionally are there fringes of white beach to invite swimmers. Our guide points out hundreds of dots on the placid blue water. These, he says, are the boats of the fishing fleet.

West of Honolulu, we soon come in sight of the land-locked bay called Pearl Harbor. Most of us have heard this name before. Some of us remember that the Japanese attacked Pearl Harbor without warning on the morning of December 7, 1941, and forced our country into World War II.

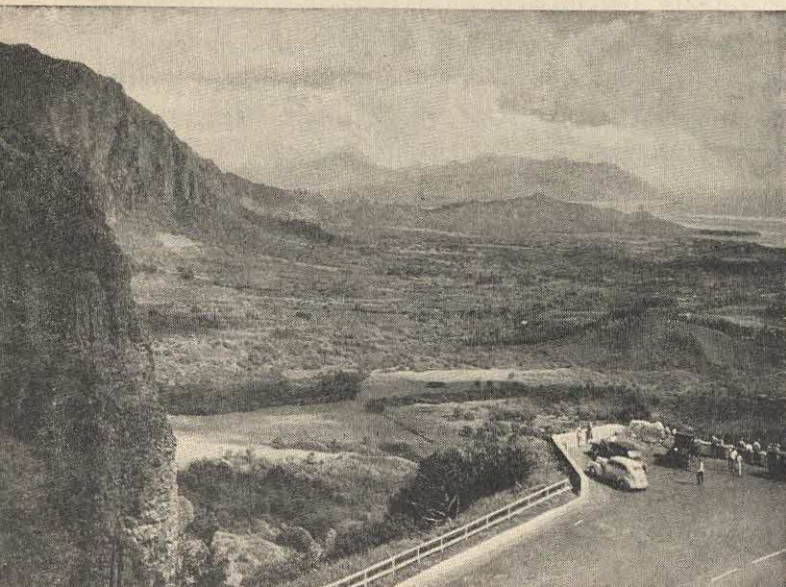
Why did the Japanese choose to attack Pearl Harbor first? Our guide tells us that Pearl Harbor has for many years been an important naval base protecting our west coast. It is large enough for many battleships. In addition, Pearl Harbor has great underground tanks for

fuel oil, warehouses of supplies, and dry docks and machine shops where all kinds of ship repairs can be made. The Japanese thought that if they could sink our ships at Pearl Harbor and destroy our machine shops and supplies, we would never be able to keep them from conquering all the Pacific.

They did sink many ships in the surprise attack. They did destroy many supplies. They did overrun much of the Pacific. But they were not able to hold their gains for long. In less than four years from the day of their attack on Pearl Harbor they were defeated.

Today Pearl Harbor is stronger than ever. And so too are the other Navy bases, Army forts, and airfields on the islands. Once again Hawaii is a mighty fortress guarding America.

As our plane leaves Pearl Harbor, it turns toward the southeast, and we are soon out over the water headed for the island of Lanai (lä·nä'ë). This island is owned by a large pineapple-canning company. It would be fun to stop and see how pineapples are grown.



The beautiful mountain scenery and fine automobile highways such as we see here make the region around Honolulu very popular with residents and tourists alike.

Courtesy United Air Lines

The climate and soil of the Hawaiian Islands are ideally suited to the growing of pineapples. Most of the pineapples eaten in the United States are grown there. A field bears fruit from eight to ten years before it has to be replanted.

Courtesy Matson Line



THE STORY OF THE PINEAPPLE

Conditions on Lanai are especially favorable for growing pineapples. The porous, volcanic soil is rich and, though the neighboring island of Molokai (mō-lō-kā'ē) cuts off most of the rain-bearing winds, there is enough moisture for pineapples—or “pines,” as we learn to call them.

The manager of the plantation calls in an overseer to show us about. He is Carlos Dos Santos, a young Portuguese. Carlos says he learned the pineapple business by working in the fields during his school vacations. He is very proud of his position as overseer. Pineapple growing and canning, he tells us, is the second largest business of Hawaii. Almost every can of pineapple we find in our grocery stores at home comes from Hawaii.

How are pineapples planted? Pausing at the entrance to a field which has just been planted, we notice that it is covered

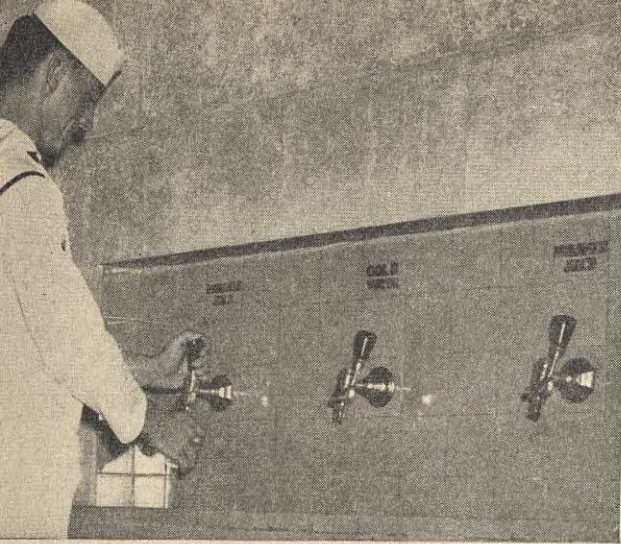
as far as the eye can see with long strips of gray paper about three feet wide set three feet apart. Carlos explains that the young plants are set into the ground through holes in the paper. The paper keeps the moisture in, the weeds down, and the insects out. By the time the plants are well started the paper has been dissolved by the rain, and the rows can be cultivated by machines. Carlos tells us that most of the field work is now done with the help of machines.

In another field we see ripe “pines” being picked by workers wearing goggles, gloves, and heavy leggings to avoid injury by the sharp spines of the plants. Carlos tells us that the “pines” take about eighteen months to ripen.

How is pineapple canned for market? Later we visit the cannery where the product of this plantation is prepared for

Hawaiian pineapples are carefully grown and selected to fit into an ordinary-sized can.





Pineapple juice is so plentiful that it runs from drinking faucets in some Hawaiian canneries.

Official U.S. Navy Photo

and with the warmth of the Hawaiian sun still on it—is an experience we won't soon forget.

Stopping at a drinking fountain in the lobby on our way out, we find to our surprise that the fountain runs pineapple juice instead of water, a courtesy offered to visitors by the management of the cannery.

What are some of the interesting sights on the other islands? From Lanai we make another short hop eastward, and this time we pass over the island of Maui (mä'ōō·ê). There we look down into the great inactive volcano Mount Haleakala (hä'lä·ä'kä·lä'), whose name means "home of the sun."

Our guide says this crater is the largest ever measured. It is more than seven miles long and two miles wide. It is so big that nearly the entire island of Manhattan, skyscrapers and all, could be lost in the 3,000-foot depth of its pit.

Less than an hour later we have reached the island of Hawaii and landed at the airport at Hilo (hē'lō), second largest city on the islands. A drive out from Hilo, along the sea, carries us past many small villages—homes of farmers and fishermen. Then for the next fifty miles we see nothing but fields of sugar cane. Some of it is green, but many fields look as though they had been burned. Our guide says that is exactly what has happened. "To get rid of the heavy underbrush and tough leaves, the fields are burned just before the cane is cut. The fires do not harm the cane in any way."

shipping. Here a young Chinese foreman shows us around. His name, we are surprised to learn, is Johnny Anderson.

The building is spotlessly clean, and the fragrance of the fruit hangs in the air. We see shining machines operated by women in fresh white aprons, caps, and gloves. These machines peel and core the fruit, trim it to fit the cans, slice it, and fill the cans at the rate of 100 a minute. Every bit of the fruit is used. Irregular slices are cut into cubes, or crushed; juice is squeezed from parts which cannot be canned; the remaining scraps are prepared for use as fodder for cattle. From field to shipping room, the canning is completed in twenty-four hours.

Johnny stops us as we are about to leave. "Don't you want to know what pineapple really tastes like right off the plant and fully ripe?" In the sunny cafeteria where the cannery workers have their meals, he carefully selects several fine ripe "pines."

He slices them into wedges that fairly drip with juice, and as soon as we have taken our first bite we know what he means. For good as pineapple may be at home, eating it this way—cut fully ripe

THE STORY OF SUGAR

The first sugar planters found conditions of soil and climate so favorable here that the yield per acre was higher than any other place in the world. This encouraged wealthy men from the United States, England, and France to spend great sums of money developing the plantations we see spread out all through the lowlands. Now all plantations are owned by Americans.

Who works in the cane fields? The native Hawaiians are an easy-going people who enjoy life and do not like to work for work's sake alone. They prefer to do things, like fishing, that are fun as well as useful. They were most unhappy working day after day in the cane fields. The planters found that they could not operate the plantations with the happy-go-lucky natives, so they brought in laborers from Japan, China, Korea, Puerto Rico, the Philippines, and the Azores. The newcomers took on the hard work of the cane fields and left the natives to their fishing. Today there are more than 500,000 people on the islands. About 175,000 are Japanese.

How do the workers live? As we look down at the vast expanse of the cane fields along the highway, we occasionally see little villages like tiny islands in the silvery green sea of waving cane. These villages are the homes of the plantation workers. Each village has its stores, churches, and schools, all grouped around a sugar mill. Houses are rent-free; medical, dental, and hospital care

are also provided without charge. Each village has a recreation center with playgrounds for children and grownups.

What do the mills produce? In Hawaii the sugar mills grind the cane and extract the sap, and boil it down into molasses or brown sugar. Most of this is then shipped to the mainland to be refined into the white sugar we use on our tables. Hawaii produces almost 1,000,000 tons of sugar a year, or one out of each six pounds of sugar we Americans use. Sugar cane is Hawaii's most valuable crop.

What are some other important crops of Hawaii? Not all of the lowland valleys are covered with sugar cane. In some of them we find rice, coffee, and tobacco. And on the higher, steep mountainsides where there is little water, many cattle are raised. One ranch alone covers more than half a million acres.



The growing of sugar cane is Hawaii's leading industry. The plantations are owned by Americans but the workmen are mostly Japanese, Filipinos, and Portuguese.

Ewing Galloway

It is said to be the second largest ranch on American soil.

"I'll tell you an interesting fact about cattle raising here," adds our guide. "You remember that the trade winds bring much rainfall to the northern sides of the islands. Well, the southern slopes of the mountains are just as dry as the northern slopes are wet.

"Some of the cattle that are raised on the dry southern slopes have never had a drink of water in their lives! They get the moisture they need from the cactus and other plant growth they find on the hillsides."

What can we learn about volcanoes?

Before leaving the island of Hawaii, we decide to visit the *Hawaii National Park* and to see the only active volcanoes on all these islands, Mauna Loa (mou'nä lö'ä) and Kilauea (kē'lou·ä'ä).

Our guide tells us that millions of years ago there were perhaps forty active volcanoes in the Hawaiian group. These volcanoes poured out layer upon layer of lava until their cones rose above the sea. Still they grew, higher and higher so that the highest, Mauna Kea (kā'ä), stands almost 14,000 feet above sea level. That is almost as high as Mount Whitney, the tallest peak in the United States. But Mauna Kea meas-

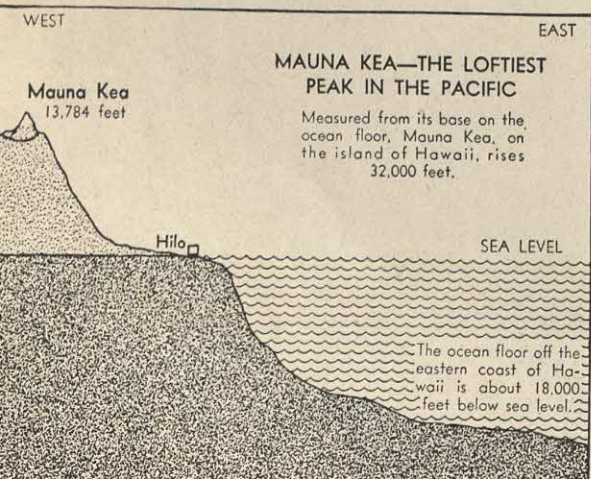
ured from the sea floor is about 32,000 feet high. That is higher than Mount Everest, the peak we call the highest in the world. Do you think we should call this the highest mountain instead of Mount Everest?

Our guide tells us that Mauna Loa is quiet right now, but usually erupts about every four years. It seldom does serious damage, but it is an awesome spectacle. Steam and clouds of vapors pour from cracks in the mountainside, showers of ashes fill the air for miles around, and streams of lava flow down the slopes. At night a brilliant red glow that can be seen for miles fills the sky. Photographers rush here from all over the world to take the pictures that we see at home.

We decide to visit the crater of Kilauea, and so we drive first to Volcano House, which stands right on the rim of the crater. This unusual hotel uses steam from the volcano to heat all of the hot water needed by its guests.

From the hotel we walk down inside the main crater, which at one time the natives thought to be the home of their fire goddess, Pele (pā'lä). About 800 feet down we cross a sea of hardened lava. Almost every year a fire pit comes to life in this crater, boiling and bubbling, and sending up clouds of sulphur fumes and hot steam.

From the crater we take an interesting drive through the park—in one place over a steaming highway—then through a forest of giant ferns, and on to strange



Mauna Kea would seem to be much higher if we could look at it from the ocean floor instead of the ocean surface. Its peak is so high that it is always snow-covered, even in this warm climate. The Hawaiian name "Mauna Kea" means "white mountain."

Ferns grow as tall as trees in the hot, damp climate of the tropics. This is a scene in the Hawaiian Islands.

Pan Pacific Press

lava tubes which remind us of man-made tunnels.

Now we are ready to leave the fascinating island of Hawaii and return to Honolulu, where we shall catch our plane for our journey southward. As we wing our way over the blue waters, we try to remember the many interesting facts we have learned about Hawaii.

What do we wish to remember about the Hawaiian Islands? These islands, which stand at the "crossroads of the Pacific," are the tops of large mountains that have been built up from the bottom of the sea by many volcanoes. They lie in the equatorial belt and have a warm marine climate.

They were discovered by Captain Cook, who found a peaceful group of Polynesians living here. Later American sailors came to the islands, followed by American missionaries. The Americans revolted against the native ruler, and in 1898 the islands were annexed to the United States and later became the Territory of Hawaii. The people hope that some day their islands will become a state.

The most valuable product of the islands is sugar, which grows in the low-land valleys. The second most valuable is pineapple, which grows at a higher altitude. Both thrive in the warm climate and the fine rich volcanic soil.

The people of Hawaii are a mixture of many nationalities and races. They have come from the United States, Japan,



China, Korea, the Philippines, Puerto Rico, the Azores, and many other lands. There are more Japanese than any other group.

Perhaps the most important thing we should remember about the Hawaiian Islands is that the different people who live there have learned to get along together, to live peacefully with one another, and to co-operate in solving their problems. All the world can take a lesson from the Hawaiians.



LIFE ON THE PACIFIC ISLANDS

Have you ever flown at dawn—out across the sea? Early this morning when we reached the airport, the sky was still dark and the pale moon hung low above the horizon. The dew was heavy and the air damp. From the tower a wind-sock rung lifeless—for the trade winds were still.

Then we were off, down the long runway, our four engines singing a mighty chorus of power. Swiftly we climbed, swiftly we left behind the crumpled jumble of green and brown and deep purple shadows that was the island of Oahu.

As we settled back in our seats, the sun broke through a bank of misty gray in the east. Long shafts of light caught the towering clouds above the distant mountains and gave a sparkle to the surf—like a necklace of diamonds along the shore.

Below us was an empty world—a deep-blue, almost purple, sea. How endless is this ocean! To be able to fly for hours on end and never see a ship, an island, or even a coral reef! What did Magellan think crossing this ocean those many years ago—and Drake, and Captain Cook, and the men on the early New England whalers and on the clipper ships that carried the China trade around the Horn? Were men more venturesome in those far-off days?

Then we remember the aviators who pioneered this very route only a few years ago. Were they not just as brave, just as venturesome in their frail planes? Perhaps there are brave men in all times. There are just as many heroes about us today as there were in the distant past. We need only to think about this a little to know that it is so.

Several hours out of Hawaii we sight, straight ahead, a tiny wisp of smoke—and then as we drone on, a gray ship, a sliver on the water. "Bound for the Fijis," someone says, for we are following that route ourselves, though a mile and a half upstairs. We wonder a little about the paths that ships and planes follow over this ocean.

What routes do ships and planes follow across the Pacific? Today almost all of the ships and planes that cross the Pacific from North America to Asia make their first stop at Honolulu. From that point they fan out to all the great ports of Asia, Australia, and New Zealand.

This Polynesian native is a chieftain of the Samoan Islands. His garment is called a lavalava.

Paul's Photos



The shortest distance between any two points on the earth's surface lies along the path of an imaginary circle drawn through these points with the exact center of the earth as its center.

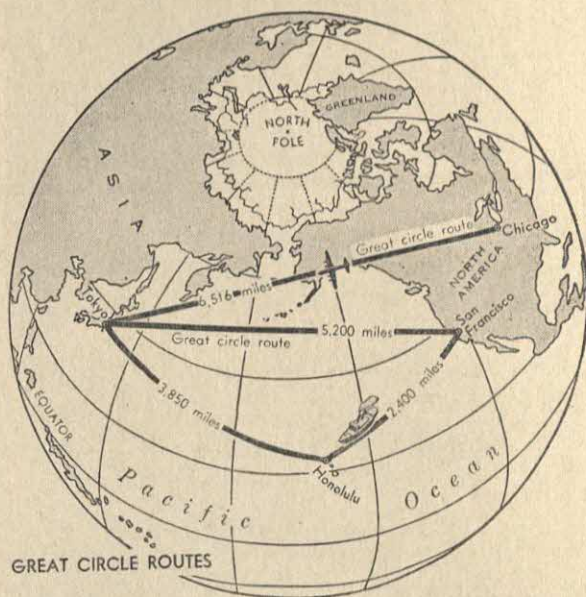
This route is not always the shortest one. For instance, ships sailing from San Francisco to Tokyo by the shortest route follow what is called a *great-circle route*. On a globe this is the shortest distance between any two points.

Take a piece of string. Stretch it between San Francisco and Tokyo on your globe. Notice that the string doesn't come close to the Hawaiian Islands. The string crosses the Pacific up near the Aleutian Islands. The distance from San Francisco to Honolulu is 2,400 miles. From Honolulu to Tokyo is 3,850 miles. The distance by the great-circle route is 5,200 miles. How many miles would be saved by the great-circle route?

Now with such a great saving we would think that all ships between San Francisco and Tokyo would follow the great-circle route. But this is not so. Many sail by way of Hawaii. What do you think is the reason for this? Do you think that perhaps the ships pick up extra passengers or carry more freight when going by way of Honolulu?

Many planes are flying the Pacific these days. Most of them jump from our Pacific coast to Hawaii, and then they too fan out. Those that go to the airports of the Far East follow a route from Hawaii to Midway to Wake to Guam and from there north toward Japan or west to Manila. Find this route on your map.

The planes that go to the "lands down under," as Australia and New Zealand are called, follow the very route we are



taking—to Canton Island, the Fiji Islands, on to New Caledonia, and then to either Sydney or Auckland.

But some planes also follow great-circle routes. For instance, stretch a string over a globe between Chicago and Tokyo. See how far the string is from Honolulu. This air-line route follows the great circle through Minneapolis, Edmonton, Anchorage, Adak, and Tokyo. Can you locate this route on your map?

What two kinds of islands are found in the Pacific? On our visit to Hawaii we saw what volcanic islands looked like. They are mountainous, with deep valleys, swift rivers, and high cliffs rising almost straight up from the sea. Another kind of island in the Pacific is the coral island. Coral islands—or coral *atolls*, as they are called—are quite different from volcanic islands.

Our first stop out of Hawaii will be on the coral island of Canton just about 1,900 miles southwest of Honolulu. Find Canton on your map. An overnight stay



Find our route on this globe. Notice that each air route across the Pacific passes near many small islands. Why? Why do you suppose that the International Date Line follows a changing path?

sight. Then when we think that the plane cannot possibly go any lower without throwing us all into the sea, a flat, low, very tiny spot of whitish land appears ahead—Canton Island. Less than a minute later we are zipping over a smooth coral runway. On one side we see the blue expanse of the Pacific, and on the other side of the runway is a greenish lagoon.

My, it is hot! Before we can climb out of the plane we are wet with perspiration. The sun beats down on the white coral, and we put on our sun glasses to cut down the glare. "Let's get into some shade," our pilot says.

In the shade of the airfield office we find it more comfortable. And the breeze feels good.

"Canton Island is less than 200 miles south of the equator," the pilot says. "Here the sun shines high overhead every day of the year. In the shade, you not only get out of those direct rays of heat, but you also get the benefit of the cooling trade winds that blow here this time of year."

We look down the island and see that it is a strip of white sandy soil that curves around to enclose a large green-water lagoon. A few palm trees grow around the airfield, and farther down the island are a few shrubs. Not a single spot of high ground is to be seen.

How were these coral atolls formed? "You've learned," the pilot tells us, "that the floor of the sea has mountains and valleys just like dry land. In the

on this tiny pin point on the map will give us a fine opportunity to see just what a coral atoll looks like.

About eight hours out of Hawaii a pilot comes back to tell us that we have just crossed the equator. "And you are mighty lucky to be crossing in a plane. If you were aboard ship and were crossing the equator for the first time, you would have to be initiated into Neptune's Kingdom. Quite likely Neptune's helpers would squirt you with the fire hose, shave your head, make you dance and sing, and end up by throwing you into the ship's pool."

What do we find on Canton Island?

Just about an hour later we notice that we are sliding down through the clouds that have made the sea a patchwork of light and shadow for the past hour. Up front a sign lights up, saying, "Fasten Your Seat Belts." We realize that we are to land soon.

We keep searching the sea ahead for the island airport. Lower and lower we go until we are only a few hundred feet over the water, but still no land is in

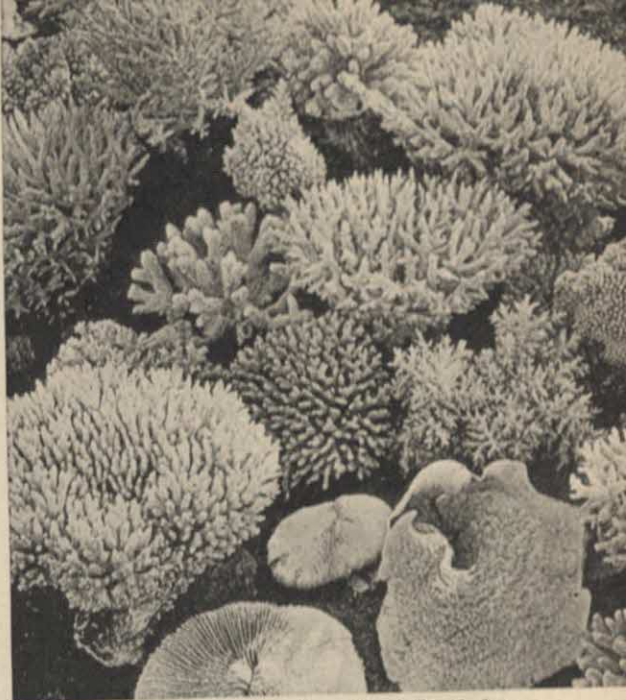
To look at a coral deposit, one might think it was a plant growing in the water. But it is really made of a kind of limestone formed from the skeletons of tiny animals.

warmer parts of the ocean tiny jellylike sea animals, about the size of the head of a pin, attach themselves to the mountains. These coral animals grow a hard, bony substance around their soft bodies. Then other corals attach themselves to the shells of the first corals. These coral *formations* keep growing on the sides and tops of the underwater mountains, very much like plants. In some places these coral growths finally reach the surface of the sea. The coral animals die out of water, so living coral reefs do not rise above sea level.

"The waves keep battering at these coral reefs, crumpling their tops into stones and sand. The waves also wash sand up on top of the reefs until finally there is a low strip of land above the sea. Later coconuts and seeds from screw pines and other plants drift to the new island and begin to grow. The atoll is ready then for man."

What is the importance of Canton Island? We learn that Canton—which got its name from a New England whal-

Most of the islands of the South Pacific are made of coral. Coral reefs are sometimes found near the coasts of large bodies of land which are washed by warm tropic seas. Such a reef is found off the coast of Brazil. A similar one is the Great Barrier Reef, which extends along the northeastern coast of Australia for more than a thousand miles. Can you find this reef on your map of Australia?



Courtesy Australian National Travel Assn.

ing vessel shipwrecked here—was uninhabited until 1937. It became important then as a steppingstone for transpacific planes. We look at our maps and see that Canton Island is directly on the line marking the shortest distance between Hawaii and the Fiji Islands, our next stop.

Crossing the International Date Line.

The next day about two and a half hours after we take off for the Fiji (fē'jē) Islands, our pilot friend comes back to

AN ISLAND WITH A CORAL REEF

The reef lies offshore on the windward, or eastern, side of the island.



A CORAL ATOLL

A broken ring of coral has been built up around the crater of a sinking volcano, forming a shallow-water lagoon.



where we are sitting. He asks, "Is the time going slowly with nothing to see but the ocean?" As we nod, he laughs and says, "Well, a whole day just went by faster than you can wink your eye! You see, we've just crossed the International Date Line. It was Sunday a few miles back. Now it is Monday, the next day. We've all lost twenty-four hours out of our lives. But we shall all get these twenty-four hours back when we return. In returning next week we leave the Fijis on Thursday and arrive at Canton Island on Wednesday, the day before!"

What is unusual about the Fiji Islands? As our plane descends over the biggest island of the Fiji group, we see that these are volcanic islands. Below us, the ocean waves are breaking against what must be a coral reef. We learn that many volcanic islands in the warmer waters of the Pacific have coral reefs along their shores.

We drive into Suva, the capital city of these islands, and are surprised at its size. We are told that there are over 15,000 inhabitants. Trucks, cars, and taxicabs zip along its streets. We pass a medical school where natives from many islands are trained in medicine and surgery. Tall, bearded policemen direct traffic.

Most surprising are the people. This is a British colony, so there are a number of Englishmen, dressed in white. There are huge Fiji natives whose ancestors were cannibals. They crowd the walks, barefoot, and in shirts and trousers. And then there are hundreds of Hindus wearing their colorful costumes. We are told that the Hindus were brought here from India to work on the

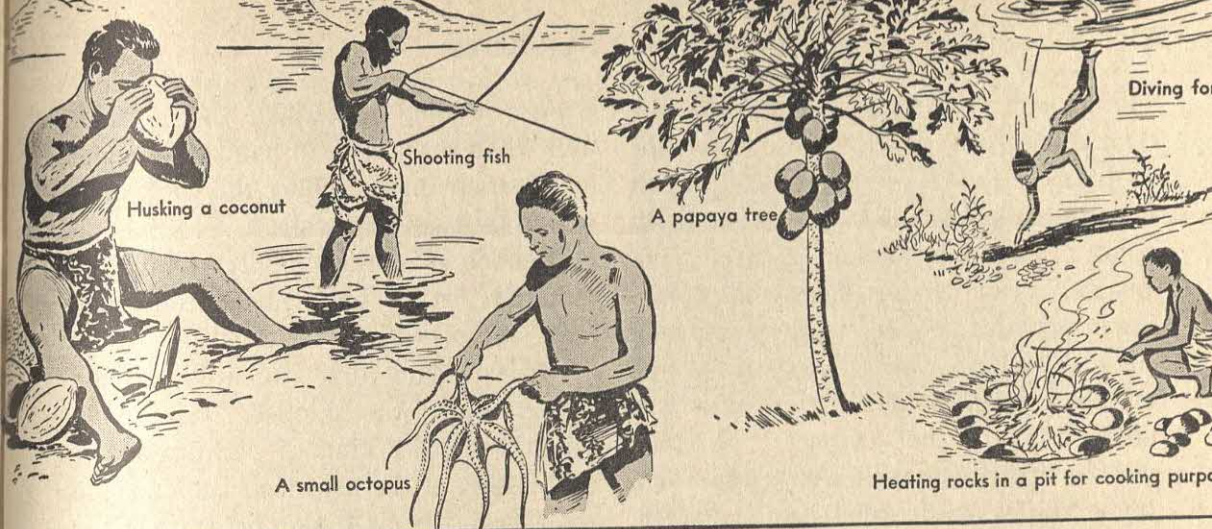
sugar plantations. To what other Pacific islands were people brought in to work on the sugar plantations?

How do the natives on the Pacific islands live? In the evening at our hotel, a salty skipper of a trading schooner tells us of life on the Pacific Islands. "I've sailed these waters for over fifty years," he says. "In that time the islanders out on the atolls and back in the hills haven't changed much. They eat about the same foods, live in the same kind of houses, even wear much the same kind of clothes that they wore when I first left Massachusetts to make the sea my home."

The skipper talks to us far into the night; and as he does, we get a better picture of how the islanders live all through the Pacific.

What do the natives eat? We learn that the coconut palm tree is very important. The milk of the green coconut is a cool, delicious drink. The meat of the ripe coconut serves as food. In over-ripe coconuts the meat and milk become a soft mixture that is the cheese of the islander's diet. At the top of the coconut palm the natives find a bud of tender new shoots which may be cooked or eaten raw. The natives also cook sprouted coconuts whose white core tastes like a soap-flavored sweet potato.

"Many a castaway," the skipper says, "has starved to death with plenty of coconuts all around him. That's because these shipwrecked men couldn't get the husks off the nuts. Without a knife, they couldn't get to the meat and milk beneath the tough husk. You know a coconut taken off a tree has a husk that makes it look somewhat like a football



in size and shape. The small round coconuts you see in the stores back home are husked coconuts.

"Well, the natives don't need a sharp knife to husk coconuts. They can tear the tough covers off in a few seconds by banging the nut against a sharp stick anchored in the ground."

We also learn that much of the islanders' food comes from the sea. The men are expert fishermen with spear and net. The fish are eaten cooked, raw, dried, smoked, or salted. Shell fish—such as cat-eye snails and giant clams—and coral crabs are gathered on the reefs by the women and children. The natives relish shark, octopus, and the meat of the spiny lobster. Sea birds and turtles—and their eggs—are favorite foods, and some kinds of seaweeds are the vegetable dish of many meals on the atolls.

On some of the islands breadfruit trees grow, bearing a fruit that looks like a green melon with warts. "I have always thought the fruit, when roasted, tasted like fresh-baked bread, but others think it tastes like potatoes. You will have to try it yourselves," adds the skipper.

Yams, taro roots, rice, and sugar cane are grown on many of the larger islands. Bamboo sprouts are eaten in some regions. As for fruit, many of the islanders have only to go into the lush tropical forests and pick all the papayas, mangoes, oranges, lemons, and wild pineapples they want. Two kinds of bananas are also plentiful—those that are eaten raw and the stubby, red-skinned variety that has to be cooked before it is eaten.

The tribes that live in the upland regions hunt game in the forests. They like to eat the flesh of monkeys, bats, lizards, frogs, and snakes. They also raise hogs and chickens for food.

"I think their method of cooking food is interesting. Many a time I've watched them dig a hole in the ground, line it with rocks, and build a fire. When the rocks are hot and the fire has died down, they wrap their fish or pig in seaweed or leaves, place it on the hot ashes, and cover it over with more seaweed. The heat from the rocks cooks the food," says the skipper.

What do the natives wear? We remind the skipper that most of the natives we have seen do not wear shoes.

"You won't find many shoes on the islands," he tells us. "The soles of the natives' feet are as tough as rubber. They seem to be able to walk over sharp coral and hot sand without a bit of pain. Besides one can't wear shoes while climbing a coconut tree. Before the white man came the natives wore very little—a loin cloth made of pounded tree bark was enough in this hot climate. Oh, they wore a little costume jewelry, too. You know, things like sea shells, animal teeth, horns, and bones.

"In the back country and on the distant islands the men still wear loin cloths or *lavalavas*. A lavalava is a piece of cotton cloth about the size of a bath towel, which they wrap around their middle. Since missionaries came here many of the island women wear long cotton dresses called 'mother hubbards.'"

What kind of houses do the islanders build? Some make little palm-leaf huts, just big enough to provide shelter for a single family in bad weather. Some make huge thatched houses, large enough for many families. Most of the houses are built on the ground. Others are on stilts over water or marshy land. A few islanders still live in tree houses.

For building materials, the islander uses whatever is close at hand. The palm leaf is used for thatching the roof, or is woven to make side walls.

Bamboo is another important building material. It is light and strong and makes a good frame for a house.

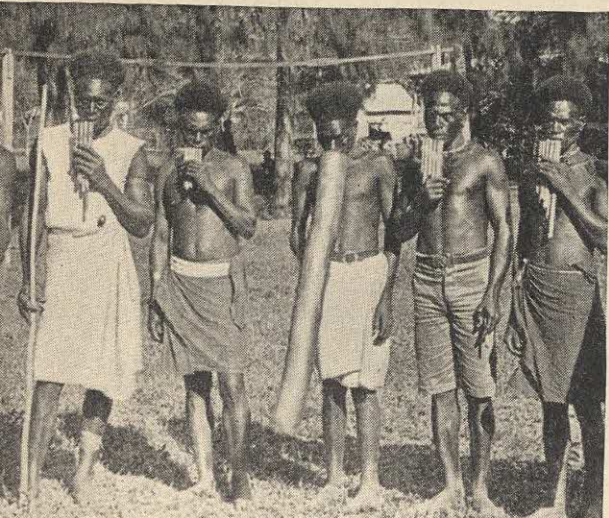
"If you had time to walk around Suva," added the skipper, "you would see still another kind of building material. Many of the huts near the cities on the larger islands have corrugated iron roofs and walls made of tin cans and old gunny sacks. I guess I like the old houses better."

Of what value are the Pacific islands? We take off at dawn the next day. As our plane streaks out over the blue ocean, we seem to be racing the sun westward toward our next stop, the large volcanic island of New Caledonia.

When we ask our pilot friend about the value of these islands, he reminds us of Hawaii. We shall not soon forget the rich fields of sugar, pineapples, and rice. Other islands are valuable for their precious woods. The discovery of sandalwood many years ago in the Fijis started a rush to those islands that was almost like a gold rush.

On some of the islands there are valuable minerals. New Caledonia has one of the few nickel mines to be found in all the world.

"But on the little islands—on the atolls—what can be raised there?" we ask our pilot. "Coconuts," he answers. "The dried meat of the coconut, which



This band of native musicians provides weird entertainment for the Solomon Islanders.

Ewing Galloway

This Pacific islander's hut has a frame of bamboo poles and walls of palm leaves. When completed the roof will be thatched with palm leaves also.



Ewing Galloway

is called *copra*, is rich in oil. And that oil is used to make soap, candles, cooking fats, and sometimes oleomargarine. Why, the natives of some of these tiny atolls might never see a white man from one year to another if it weren't for the copra. That's how the natives get their cotton cloth, their matches, their tools—in exchange for their copra."

Remembering Canton Island, we know another way in which some of these islands are valuable. They are useful as steppingstones across the vast Pacific. What are the island steppingstones used by airplanes flying from San Francisco to New Zealand? Some of the islands were equally useful in the days before the airplane. Sailing vessels put in at the islands for water and fresh foods. The ships of many nations used the islands as coaling stations and as repair bases. Some, like Hawaii, became relay stations for transpacific cables.

The islands have another use. We remember the great navy base at Pearl Harbor that helps to protect our western coast. The United States has another great base at Guam and has been granted the right to build bases on the Philippine Islands. Still other islands will be used by our army, navy, and air force as testing centers for atomic bombs and rockets.

Who governs the islands of the Pacific? When we examine our maps, we see that many countries govern these islands. In the southern part of the Pacific we see islands governed by France, New Zealand, Australia, Great Britain, and the Netherlands. A few of the islands

are governed by two countries together. Canton Island, where we spent our first night out of Hawaii, is governed jointly by Great Britain and the United States. Find the Samoan Islands on your map. The eastern islands of this group are governed by the United States, and the fine harbor of Pago Pago is a good naval and fueling station for our ships. The western islands of the Samoan group are governed by New Zealand.

North of the equator most of the islands are governed by the United States. For many years we have owned the Midway Islands, Wake Island, and Guam. Midway and Wake are air steppingstones and relay stations for Pacific cables. No one lives on these islands except employees of the air lines, cable companies, and perhaps a few government employees.

Guam, which is almost 1,500 miles west of Wake, has a population of over 20,000 people plus many army, navy, and air force personnel. The land is fertile, and the people raise tobacco, coffee, pineapples, and rice. The most important product is copra.

What is the Territory of the Pacific Islands? Before World War II the Japanese controlled three large groups of islands in the Pacific. They were the

Carolines, the Marshalls, and the Marianas. Some of these islands became the scenes of bitter and costly fighting between the Americans and the Japanese. By the end of the war the Japanese had been driven from the islands. Then in 1947 the United Nations placed these islands under the control of the United States. There are 98 islands in these three groups scattered over 2,000,000 square miles of ocean.

We call these three groups of islands the *Territory of the Pacific Islands*. Some may be valuable as air bases or naval bases. Scientists are studying most of the islands to find out about their trees, plants, birds, animals, fish, soil, insects, and, of course, their people.

On some of the larger islands we are establishing schools and hospitals, and even the smaller islands receive regular visits from navy doctors and dentists.

About three hours out of the Fijis we sight a few islands, tiny clusters of green

in the dark-blue ocean. Then the French colony of New Caledonia looms up ahead. In a few minutes we have crossed the coast and are flying over rugged green mountains with deep valleys. Some of the valleys are half-filled with soft, white clouds, and in others swift rivers and dashing waterfalls sparkle in the sunlight.

We pass over Nouméa (nōō·mā'ä), the capital of New Caledonia. A plume of yellow smoke rises from the tall stack of the nickel smelter. A few ships dot the water of the large landlocked harbor. A little farther up the coast we land at a large airfield, almost in the shadow of the mountain ridges. We stay at the airfield just long enough to stretch our legs and pick up a few passengers. Then we are off again for New Zealand.

What do we want to remember about the Pacific? The Pacific is the largest body of water on earth, larger than all of the land area. Magellan was the first to sail across the Pacific, and Captain Cook was first to explore many of the islands of the Pacific.

There are two different kinds of islands in the Pacific: volcanic islands, such as the Hawaiians, and the coral atolls. The atolls are usually very low, and the coral reefs of which they are a part are usually circular in shape.

The natives on the islands live much as their ancestors did hundreds of years ago. The palm tree and the sea furnish most of their food. The palm also supplies building materials for their homes



Native children of Guam enjoy a game of soft-ball as much as American children do. How do you think they learned the game?

Official U.S. Navy Photo

and copra which they exchange for cloth, tools, and other supplies.

The islands of the Pacific are valuable as naval and air bases protecting the Americas. They are useful as stepping-stones across the Pacific. Their more important products are sugar, pineapples, and copra.

The islands of the Pacific are governed by many nations. Besides Hawaii, the United States governs Midway, Wake, Guam, the eastern islands of Samoa, and

many other small islands. Before World War II Japan controlled three large groups of islands in the Pacific. The United Nations has placed these islands, called the Territory of the Pacific Islands, under the control of the United States.

The Pacific today is almost an American lake, and people of the United States have finally come to realize that this part of the world is very important to them.

YOUR ACTIVITY PROGRAM

The people of the United States are becoming more and more interested in the world's largest ocean and the islands which dot it. This activity section will help you to remember the things which you have learned in this unit.

Solving the Problems

A. Recognizing the Problems

1. Write the problems of this unit in your notebook. How many are there?
2. Write a P in front of the problems which are about people, and an F in front of the problems which are about geographical facts. (Not all of the problems will have a letter in front of them.) Which problems—those about people or those about geographical facts—seem the most important to you?

B. Gaining the Understandings

1. Not since you left our southern neighbors have you learned so many unusual words in one unit. Be sure that you can explain the meanings of all the following words:

annex	outrigger
archipelago	papaya
atoll	"pines"
breadfruit	poi
copra	Polynesians
"down under"	scurvy
El Mar Pacifico	taro
exotic	Terra Australis
great circle	Territory of the
lavalava	Pacific Islands
lei	yam
mango	

2. Answer the following questions briefly:

What Americans once knew a great deal about the Pacific?

Why did most Americans forget about the Pacific?

Why are there islands in the oceans?

How did the Pacific Ocean get its name?

How did Magellan reach the Pacific?

What was Captain Cook searching for?

What were some of the islands which Cook explored?

Why didn't Captain Cook's men get scurvy?

What are the Hawaiian Islands sometimes called?

What kind of climate does Hawaii have?

Is Honolulu a modern city?

What peoples live in Hawaii?

Who are the Polynesians?

How did the Polynesians travel over the Pacific?

Why did many New England sailors remain in Hawaii?

What country governs Hawaii?

Why is Pearl Harbor known to every American?

Why is paper spread over fields in which young pineapples are to be set?

How do the pineapple-canning companies use every bit of the fruit?

What volcano has the largest crater ever measured?

What is Hawaii's most important product?
Why did the sugar planters have to bring in workers from other countries for their plantations in Hawaii?

What do the sugar mills produce?

How do some of the cattle in Hawaii live without water?

Who was Pele, and where did the Hawaiians think she lived?

How are coral atolls formed?

Why does the sun seem so hot on Canton Island?

What happens when one crosses the International Date Line?

Why are there Englishmen and Hindus, as well as many other people, on the Fiji Islands?

What are some of the uses the natives have found for the coconut?

How do the natives husk coconuts?

What are some of the other things the natives eat?

Why is bamboo a good building material?

For what is the oil from copra used?

What countries govern the islands of the Pacific?

What is the capital of New Caledonia, and what mineral is produced there?

3. Be able to locate the following and tell the importance of each:

Canton Island	Honolulu
Fiji Islands	International
Guam	Date Line
Hawaii National Park	New Caledonia
Hawaiian Islands	Nouméa
Hilo	Pearl Harbor
	Strait of Magellan

Enriching the Understandings

1. Select one group of the Pacific Islands (for example, the Solomons or the Marshalls) which you did not study in this unit and do some research on it. Find out what the people are like, what plants and animals grow there, etc.

2. Make a chart of Captain Cook's voyages. See if you can get a copy of his journals to read and report on.

3. In this unit you learned that Captain Cook's men did not get scurvy because they had a chance to eat fresh fruits and vegetables. English sailors are sometimes called "limeys." There is an interesting connection between these two facts. Find out what it is.

4. Find some pictures of the mysterious statues on Easter Island.

5. Make a product display for the Pacific Islands.

6. Go on a picnic and cook some corn (still in the husks) or potatoes "island style": build a fire in a hole lined with stones and cook the food on the hot stones after the fire has died down.

Applying Your Knowledge

Write a short paper explaining either why Hawaii should become a state, or why it should not become a state. Include material on location, transportation, resources, people, industries, and anything else which you feel is important.

Forming Opinions and Attitudes

1. Ever since the Pacific islands were discovered, people who are tired of cities and hard work and cold climate have dreamed of settling down on an island paradise. Do you think life on the Pacific islands would really be as pleasant as it sometimes sounds? Do some research on this question and discuss your opinions.

2. Some geographers think that people in regions of changing temperatures learned to be saving and thrifty because they had to save in order to have enough food during the winter. People in mild climates where food grows all year round, as on some of the Pacific islands, had no reason to save, and so they never were interested in thrift. Do you think this might be true? Do you think that the people of the Pacific Islands should learn to be thrifty, even though food does grow all year round there?

3. The United States is trying to take care of the people of the Pacific Islands which it governs. Is it fair to use the money of our taxpayers to help the islanders? Is it our duty to send medical and other aid to these people? Think carefully about this question before forming your opinion.



Paul's Photos

New Zealand has more over-seas trade per person than any other country in the world. Most of this trade passes through Auckland, its largest city and busiest port. But this view of the harbor does not suggest much activity.

18. Lands Across the Pacific

"Now you're on your way to visit the 'lands down under,' as you people of the Northern Hemisphere often call Australia and New Zealand," a fellow passenger says. The speaker, Mr. Gilchrist, boarded our plane at New Caledonia for the flight to New Zealand.

"I heard you mention a little while ago," Mr. Gilchrist continues, "that you visited Canada recently. That's interesting because in New Zealand and Australia, you'll meet people who are very much like the Canadians."

We tell our friend that if that is so, then we are going to meet people who are like Americans. We found that Canadians are very much like the people of the United States.

"Yes, you'll find many similarities between your people and ours," Mr. Gilchrist says. "That's because the first settlers of your land and ours were from the British Isles. These settlers founded

free governments. In our countries people still worship as they please. They say what they choose. They can live and work wherever they wish. People who enjoy these rights are free. People of the United States, Canada, Australia, and New Zealand are free in this way.

"But you'll find that there are some differences, too, between our people and yours. More of our people are of British ancestry. Your country and Canada have had more immigrants from other lands than we have had. You'll find more British customs followed in New Zealand and Australia than you saw in Canada.

"Also, the geography of our countries is quite different from yours. The United States is part of the large North American continent. New Zealand is a country made up of islands, and Australia is a country that occupies all of the smallest continent in the world."

NEW ZEALAND—THE GREEN ISLANDS

What does the map show us about New Zealand? Mr. Gilchrist suggests that we find New Zealand on our maps. We see that two large islands lie about 1,200 miles east, and a little south, of Australia. They are North Island and South Island. These two, and some small islands near by, make up New Zealand.

We learn that the two large islands stretch about 900 miles from north to south, and that their greatest width is a little over 200 miles.

We see on the relief map that mountain chains extend from northeast to southwest through the interior of both large islands. "The mountains of South Island are called the Southern Alps," Mr. Gilchrist says. "Their peaks are always covered with snow. On North Island are a few active volcanoes. We sometimes have mild earthquakes."

What do we see in Auckland? Just about seven hours after leaving New Caledonia, we see a mass of white clouds ahead. Shortly afterwards the rolling, green lowlands of New Zealand appear.

After we land at the Auckland airport, Mr. Gilchrist takes us on a tour of the city. It is cooler here because Auckland is about as far south of the equator as San Francisco is north of the equator.

The people we pass on the street are dressed like our own people back home. "As you will see," Mr. Gilchrist says, "we produce much meat and butter, and these foods make up a great part of our diet. Like the English, we are a nation of tea drinkers and mutton eaters. We're considered a very healthy people."

We learn that Auckland has about as many people as Omaha, or San Diego.

Auckland is New Zealand's largest city.

All the cars are driving on the "wrong," or left, side of the street—a custom brought over from England. Stores and other business buildings are like those in our cities except that most of them have a canopy extending from the top of the first floor out over the sidewalk, providing shade and shelter from sun and rain. We see many people on Auckland's fine beaches, and the numerous cricket and rugby fields tell us that New Zealanders like sports.

"As you can see," Mr. Gilchrist says, "we have no large manufacturing plants in New Zealand. We do have a number of smaller plants that turn out products for our own use. Clothing and shoe factories, woodworking shops, brickworks, and electric-appliance works are located in the many towns on North Island and South Island. These industries are run mostly by hydroelectric power from our rivers. But for most manufactured articles we depend on England, Canada, the United States, and other countries.

"In return, people in certain parts of the world are dependent upon our exports for some of the things they need. You see, all parts of the world are *interdependent*, meaning they all need to import some products from other countries in exchange for products of their own. No country can produce everything its people need.

"If you want to know what our leading industries and chief exports are, let's visit my *station*—or farm, as you Americans would say."

What is New Zealand's most valuable resource? As we drive through the coun-

THE STORY OF NEW ZEALAND IN MAPS

1. **SIZE COMPARISON.** New Zealand has an area the size of Colorado, but has less people than our tiny state of Connecticut.

2. **PRODUCTS.** Although New Zealand has some minerals, her chief wealth is in green fields, the animal life they support, and timber lands.

try, we notice that the rolling fields are the greenest we have ever seen.

"Just as in your country," Mr. Gilchrist says, "our fertile soil is our most valuable resource. And that rich green grass you see is our chief crop.

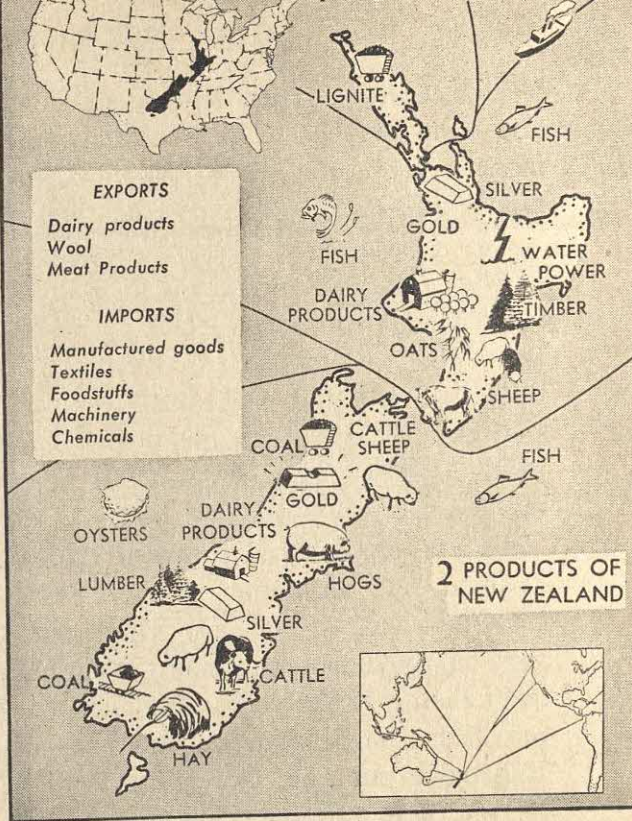
"You seem surprised that we would let the grass keep growing on our fertile soil. Well, we grow wheat, other grains, and vegetables, too. We grow enough of those crops to feed our population. But this grass enables us to supply the world with products it needs more than the grain we could grow. There's my station now; you'll soon see what I mean."

What are the leading industries of New Zealand? Mr. Gilchrist points to a fenced-in grassland in which hundreds of dairy cattle are grazing. Our friend's station is a dairy farm.

"Dairy farming is one of the leading industries of New Zealand," our host says. "This is especially true here on North Island. We export more cheese than any other country in the world, and more butter than any except Denmark."

As we walk around his station, Mr. Gilchrist points out the milking sheds. They do not look as big and strong as the barns we have seen back home and in Canada. "The weather here is so mild," our host says, "that cattle graze out in the open all year. We don't need barns."

Why do you think New Zealand has a climate that is mild all year round? In



what temperature region or belt is it? Is its climate continental or marine?

"Some of my neighbors raise cattle for meat and hides. Others raise sheep," Mr. Gilchrist continues. "Sheep raising is a leading industry of New Zealand. Most of the sheep stations are on South Island, however. Great quantities of wool, hides, and tallow are exported, and we ship more mutton than any other nation in the world. Again, this is because of our fields of waving green grass."

What is the history of New Zealand? The first white explorer to come to New Zealand was a Dutchman, Abel Tasman. He found the natives unfriendly, so he left. But the name—New Zealand—was given to these islands by the Dutch.

"Then the great explorer of the Pacific, Captain James Cook, came here," our friend says. "Some small settlements

were established later—chiefly missions and lumber camps. The British government sent the first officials to New Zealand a little over a hundred years ago.

"As is true of so many other regions of the world, the discovery of gold in New Zealand brought thousands of settlers. Most of these gold seekers, soon turned to working on the land and in the cities. Now there are about 2,000,000 people in New Zealand. More than nine out of ten are of British descent."

How is New Zealand governed? "New Zealand is a Dominion of the British Commonwealth of Nations. That means that our government is more like Canada's than it is like yours. We make our own laws, but we recognize the King of England as our king. Our capital is Wellington. Can you find it on your map?"

We learn that the New Zealand government owns the banks, the railroads, the electric power companies, and the insurance companies. The government runs these business just as the United States government runs our post offices.

Who are the Maoris (mou'riz)? About one of every twenty persons in New Zealand is a *Maori*. "The Maoris are Poly-

nesians," Mr. Gilchrist says. "They are tall, intelligent, brown-skinned people—related to the Hawaiians. Nearly 100 years before Columbus discovered America, these people came here from islands in the central Pacific.

"After thousands of white settlers had come to New Zealand, the Maoris feared that they were going to lose their land. There were struggles in the interior between the Maoris and the white settlers similar to the Indian wars in your land.

"But this is all past now. The Maoris made their peace with the British settlers. They live in their own villages, have their own sheep and cattle stations. Their children attend schools and many of them follow the same occupations as white men."

What should we remember about New Zealand? Mr. Gilchrist drives us back to Auckland, where we are to board a plane for Australia. After he leaves, we talk over what we have seen and heard.

We know that New Zealand is an independent nation in the British Commonwealth of Nations. The people enjoy the same rights and freedoms as in our own land. New Zealand is made up of two large, mountainous islands and several smaller ones. It was settled early by Polynesians called Maoris, and later by people from the British Isles. The fertile lowlands are covered with grass which has made dairy farming and the raising of cattle and sheep the leading occupations. Auckland is the largest city, and Wellington is the capital.

The Maoris of New Zealand made wood carvings like these, built fences like this around their villages, and wore the same kind of clothing before white men came here.

Paul's Photos





Courtesy Commonwealth of Australia

Australia has many wild animals which are found nowhere else in the world. One of the strangest of these is the kangaroo. These animals used to be very common in Australia, but as more and more of the country has become settled, the kangaroo population has slowly dwindled. Great numbers of them are sent to zoos all over the world.

AUSTRALIA — NATION AND CONTINENT

As our plane carries us westward over the 1,200 miles of blue water that lie between Auckland and Sydney, Australia, a fellow passenger asks, "Americans, are you not?" When we say "Yes," he tells us that he knows America well. "I've never been there, you understand, but my daughter married an American soldier who was stationed in Australia during World War II. They now live in Cleveland, Ohio. Every month we get letters telling us about your country.

"It must be a wonderful place to live. Ever since my daughter moved to the United States, I have been interested in discovering in what ways the two countries are alike and different."

In what ways are Australia and the United States alike? "For one thing," begins Mr. Howell, "the two countries are about the same size. If you turn Australia upside down it looks almost like the United States. Both countries were founded by settlers from the Brit-

ish Isles. We both speak English. Our laws are based on old English laws. Many of our customs are the same. Our clothes are similar. If someone could put a bungalow from Cleveland on a magic carpet and whisk it to Sydney, you might have a difficult time deciding which house had come from America.

"The people of both countries are very fond of sports. Most of our movies come from the United States. And when you listen to the radio, you hear the same popular tunes that you hear back home. Perhaps what is more important, Australians and Americans think alike. For example, we both believe in freedom. And we both have the freedom to elect our own leaders, to think what we please, to say what we please, and to write what we please."

In what ways are the two countries different? "The population of the United States is much greater than that of Australia. We have only about seven

and one-half million people," continues Mr. Howell. "Except for a few 'black-fellows,' who live in the center of the continent, all Australians are white.

"Our seasons are different. When you have winter, we have summer. When you have summer, we have winter. A large part of your country has enough rainfall to grow crops. More than half of Australia is too dry for crops. Because you have enough rainfall you have many large rivers, but we don't.

"Your people are spread all over the United States in cities, in small towns, and on farms. But in Australia almost half of the people live in six big cities near the coast. We shall soon be landing in the largest of these cities—Sydney."

What do we see in Sydney? We shall not soon forget our first view of Sydney. Our pilot brings us directly over the harbor, and we are surprised at how much it reminds us of San Francisco. Near the entrance to the harbor is Sydney's great bridge. Beyond is a beautiful bay dotted with freighters, ocean liners, ferry-boats, sailboats, and pleasure craft.

We are fascinated by the city. The little hills that run up from the water's edge are covered with row on row of houses with red roofs—red roofs wher-

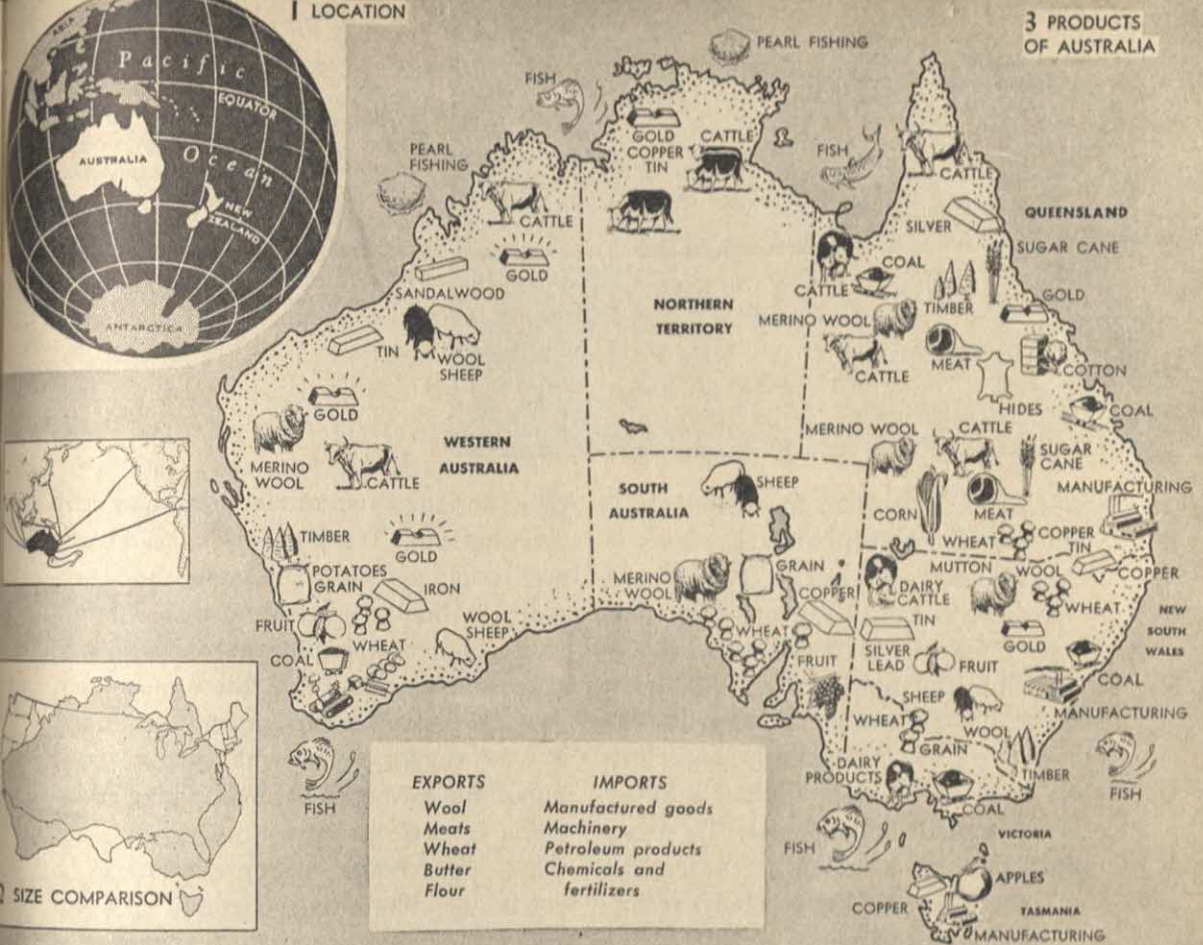
ever we look. Later when we take a sight-seeing tour about the city, we notice that most of the homes are bungalows made of brick. They are surrounded by flower gardens with nasturtiums, violets, poppies, sweet peas, hyacinths, and roses, and many other flowers that we see in our own yards at home. One thing interests us especially. Americans sometimes name their summer cottages, but Australians name their homes: strange Australian names like Woolloomeroo, Toowoomba, Wagga Wagga, Indooroopilly, and Cunnamulla.

Sydney is a large city with more than a million and a quarter people. Is there any city in the United States with about the same population? The business district has many large stores, fine shops, and theaters. It interests us to see drug-stores called chemist shops, soda fountains called milk bars, streetcars called trams, and safety islands called refuges. And when we visit business offices and stores, we often find the manager and the clerks stopping work for a few minutes in the morning and afternoon for a cup of hot tea—an old English custom.

On the docks workmen are busy loading and unloading ships from all over the world. Smoke pours from factory



The harbor at Sydney—spanned by the beautiful Harbor Bridge—is known to nearly every traveler to the "Lands Down Under." Sydney is the largest city in Australia, and an important port. Passenger liners stop here, and huge trans-pacific planes land near by.



1. **LOCATION.** This is the only continent entirely within the southern hemisphere—and the most isolated. 2. **SIZE COMPARISON.** Australia is almost as large as the United States. 3. **PRODUCTS.** Because most of Australia is very dry, its products are most like those of our Great Plains region.

chimneys. During the war many new factories were built to manufacture war goods. Since the war ended, these factories have been manufacturing peace-time products like washing machines, radios, and automobiles. Most of these products are used in Australia.

During a week end in Sydney, we discover how much Australians enjoy sports. It seems to us that every bus, tram, and automobile is packed with young people and older folks going to the beaches along the ocean, the horse races, the yacht and canoe clubs, the football games, or cricket matches.

Who first settled Australia? About the time that the English were setting up colonies in America, the Dutch were exploring the northern and western coasts of Australia. They found a barren, uninviting land, and did not stay. Much later, as we recall, Captain Cook explored the eastern coast and carried news of this land back to England.

Then a strange thing happened. Before the Revolutionary War in America the English had often sent convicts to America. After the Revolution they could no longer send them to America, so they began to send them to Australia. In



Wide boulevards wind through parks and wooded areas in this bowl-shaped valley. A lovely river runs close by and the surrounding hills are green and beautiful. But not many people live in the new city of Canberra. Can you think of any reasons why this is so?

Edlay-Pix

1788, the first settlement was made at Sydney with English convicts.

After many years other settlers came to Australia because land was free. Then in 1851 gold was discovered. People rushed into the continent.

How is Australia governed? Mr. Howell tells us that until about fifty years ago Australia was divided into several different British colonies. Then they united to form a union somewhat like the United States. Each colony became a state. Six states and one territory make up the Commonwealth of Australia.

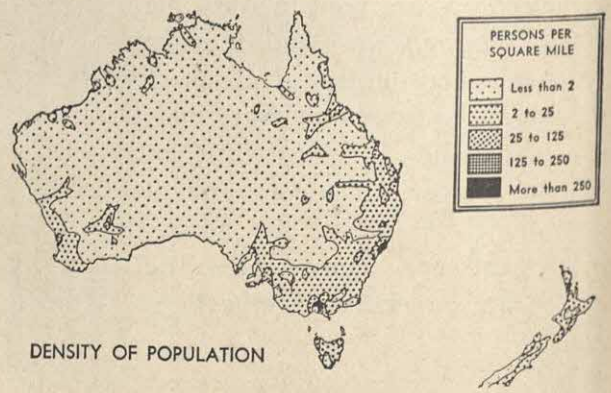
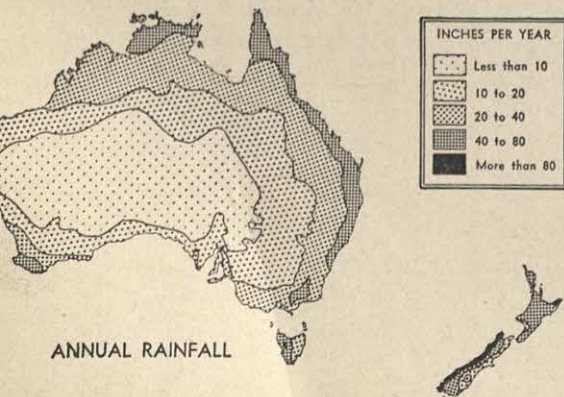
Both Sydney and Melbourne wished to become the capital of the new country. In order to avoid a dispute, a beautiful location for a new capital was chosen between the two cities. It was named Canberra (kăn'bĕr-ă). Here a new city was laid out and built! The

plans for this modern city were made by an American. There are wide boulevards and spacious parks; the homes and government buildings are unusually attractive. The town is not yet finished, and only a few people live there. Most of them are government employees.

Do you remember what you learned about the government of Canada? Australia's government is very similar. There is a house of representatives, a senate, a prime minister, and a governor general. Australia is also a member of the British Commonwealth of Nations.

What do our maps tell us about Australia? Of course, the first thing our map tells us about Australia is that it lies south of the equator, between 10° and 40° south. How many degrees north of the equator does the United States lie? What city in the United States is

The rain-bearing winds of the southwest Pacific provides New Zealand with much rainfall, but Australia is not so fortunate. Do you think that both lands are underpopulated?



at about the same latitude north as Sydney is south?

Knowing the latitude of Australia, we can guess that the climate will be somewhat warmer than that of our own country. We know that the northern part of Australia will be very hot. It is only about eleven degrees from the equator. How far from the equator do you live?

Perhaps the most interesting map of Australia is the rainfall map. It is a clue to where the people live, and how they make a living. Notice how little rain falls in the interior.

"There are spots in the interior of this continent," says Mr. Howell, "where no rain has fallen for years. Much of this desert has never felt the feet of white men."

Most of the rain falls on the edges of

Australia. That is where most of the people live, too. Turn now to the population map of Australia. Why do you think that few of the people live in the north, even though there is plenty of rainfall there? Do you suppose that it has anything to do with the temperature? How close is the northern coast of Australia to the equator?

Let us turn now to our relief map. The principal mountain range in Australia is along the southeastern coast. It is called the *Great Dividing Range*. To the Australians the Great Dividing Range is a dividing line between the coast lands and the *outback*. All of the land of the interior is called "outback." At the southern end of the range are the peaks and valleys of the Australian Alps.

A PLANE TRIP OVER AUSTRALIA

After enjoying the sights of Sydney for several days, we decide to accept the invitation of Mr. Howell and visit his cattle station. We have planned to fly in order to see more of the country.

Early the next morning we take off and head west. For a while we are flying over the rolling lands of the coastal region. The farm lands are fertile and are well watered.

Where is Australia's wheat-growing region? Our plane climbs to cross the mountains of the Great Dividing Range. West of the mountains we fly over the huge wheat-growing region of Australia. Here in New South Wales are several thousand square miles of land where the rainfall is not so heavy as it is east of the mountains. But it is enough for wheat.

Most of the wheat farms contain 1,000

Most of the wheat-growing regions of Australia are many miles from any city. The grain is put into bags and hauled in horse-drawn wagons to the nearest railway. Here we see such a wagon during a midday stop.

Ewing Galloway



acres or more. The wheat is sown in the fall, usually in May. It is harvested in January. This sounds strange until we remember that the seasons are reversed south of the equator.

The farming in this part of Australia is all done with machinery. Far more grain is produced than the people of Australia require. As a result more than 120,000,000 bushels are exported each year. Most of it goes to England in exchange for manufactured goods.

What kind of country is the outback? As we continue to fly westward, we see fewer and fewer wheat fields. "We have flown so far inland," Mr. Howell tells us, "that we are coming to the drier parts of the continent. Here there is not enough rainfall for wheat, but there is enough for a little grass.

"Farther westward it is still drier. Some of the outback is so dry that nothing at all can grow there. Can you find Nullarbor Plain on your maps? The name means 'no trees.'

"But we are over a sheep-grazing section of the outback right now. Would you like to land and learn how sheep are raised in Australia?"

Why does Australia have flying doctors? As our plane circles for a landing,

we are surprised to see another plane parked on the hard-packed earth. In a few minutes we are talking to the pilot. "What are you doing here in the outback?" we ask him. He tells us that he is the pilot for a flying doctor.

"Some of these stations are 200 miles from the nearest town. In the old days many of the settlers died because they couldn't get to a doctor. Now almost every station has a little radio set. If they need help they just crank the generator and call for the doctor. He phones me, I warm up the plane, and we are off across the bush.

"The doctor is in the house now taking care of a shepherd's broken arm. You can see that this service helps many people every year."

How are sheep raised in Australia? As we walk toward the well-kept homestead, the owner, Mr. Green, comes out to greet us. Visitors are not common in the outback, and he makes us feel that we are welcome. Mr. Green says that his station covers between 300 and 400 square miles. He says that some stations are even larger than his.

Mr. Green's station is a settlement in itself. In addition to the comfortable home there are stables, a blacksmith



Here are hundreds of mittens and sweaters—still on the sheep. At least once a year the sheep in Australia are brought to the shearing sheds where they are clipped. Wool is sent to the cities to be made into cloth, or baled and shipped to the United States, England, or Canada.

Philip Gendreau



RELIEF

HEIGHT OF LAND

- OVER 10,000 FEET
- 5,000 TO 10,000
- 2,000 TO 5,000
- 1,000 TO 2,000
- 0 TO 1,000

SEA LEVEL

DEPTH OF WATER

- 0 TO 500 FEET
- DEEPER THAN 500 FEET

AUSTRALIA AND NEAR-BY ISLANDS



Koalas spend most of their time in the branches of the tall eucalyptus trees. Their only food and drink are the leaves of these trees. Koalas are about the most harmless creatures known.

Courtesy Australian National Travel Association

shop, a machine shop, a laundry, a bakery, and long corrugated-iron sheds to store wool and machinery.

When we ask Mr. Green how many sheep he has, he says, "A good many thousand. I won't know exactly how many until shearing time. But in all Australia there are seventeen times as many sheep as people."

What are the enemies of the sheep raiser? Mr. Green invites us to go with some of his men to poison rabbits. As we ride horseback across the country, we see many very large rabbits. We ask the men why they wish to kill them. They tell us that rabbits are a great *pest* in Australia, because they eat the grass that is needed for the sheep and cattle. In one drove there may be thousands.

They tell us that the longest fence in the world is the "rabbit proof"—a fence 1,500 miles long, from north to south across Australia. It was built by the government to keep rabbits of Western Australia from coming into Victoria, New South Wales, and Queensland.

What is a *dingo*? The men carry guns and are on the lookout for wild dogs, called *dingoes*. Dingoes kill rabbits, but they also kill sheep.

How is the wool taken from the sheep? Mr. Green tells us that once a year, or sometimes twice a year, the sheep are brought in off the range to the shearing sheds. Trained collie dogs, called *kelpies*, help the shepherders.

The shearers use electric shears, some-



thing like the clippers barbers use. A fast shearer can shear 200 sheep a day.

The wool is taken to the railroad on large wagons called *lorries*. These are often pulled by bullocks or young oxen. As many as twenty bullocks are sometimes hitched to one wagon to pull it over the sandy roads. Where the roads are better, motor trucks are used.

Australia produces about one-third of all the wool used in the whole world. The sheep are Merinos (*mú·ré'nōz*), and they produce the highest quality of wool. It is Australia's most valuable product.

What strange animals do we see in Australia? We have heard much about the kangaroo, and we ask Mr. Green whether there are any on his station. He suggests that we saddle some horses and ride out to the bush along the river. He tells us that Australians call any uninhabited bit of land *bush*. Soon we frighten up a herd of twenty or thirty gray-brown kangaroos, which make a *thud-thud* noise as they travel in great



Beef, hides, and leather are important products of Australia. Why? What parts of the United States and Canada does this scene resemble? Do you think that dairying would be important here?

Courtesy Australian News and Information Bureau

to take care of themselves. There are many marsupials in Australia. A common American marsupial is the *opossum*.

Another interesting Australian marsupial is the *koala*. This little fellow looks like a teddy bear. "A few years ago," says Mr. Green, "I captured a koala with a tiny baby in its pouch. The children were delighted when the baby koala was big enough to jump from its pouch and play with them."

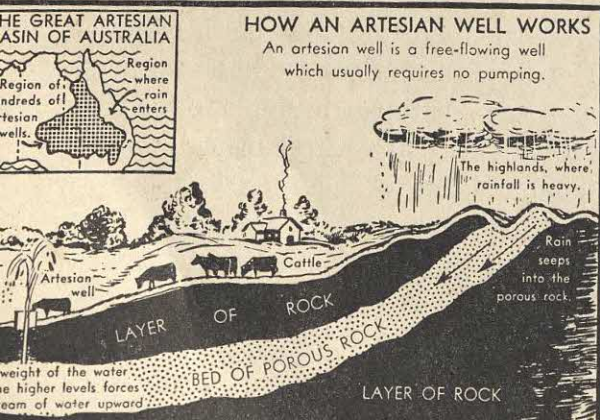
Where is Australia's cattle country? We thank Mr. Green for his hospitality and are soon flying north toward Mr. Howell's cattle station. For hours we continue over an almost unbroken plain.

We fly over land that looks barren from the air. Here and there are a few small trees, and we see cattle instead of sheep. When our plane lands, we are delighted to see a spacious house surrounded by beautiful shrubbery.

How large is an Australian cattle station? "My station is very large," says Mr. Howell, "especially when you compare it with the farms along the coast. We have about 4,000 square miles of land and about 24,000 cattle. How many is that per square mile?

No wonder we haven't seen many cattle since we arrived. We ask Mr. Howell why Australians do not have smaller stations and keep more cattle per square

The artesian basin of Australia makes cattle raising possible in this land of little rainfall. The water from the wells does not taste good to people, but the cattle like it.



These people are blackfellows, who live in the interior of Australia. Compare their way of dress with the picture of the Maori of New Zealand. Would you say that this part of Australia is warmer or cooler than New Zealand?

Burton Holmes from Ewing Galloway

mile. He tells us that the country is too dry to produce feed for more cattle. Throughout central and western Australia the average annual rainfall is less than ten inches. Much of that region is desert. Mr. Howell suggests that we saddle some horses and ride out to the nearest watering place. Here we see one of the *artesian* wells on his station.

There is a great underground *reservoir* of water extending under hundreds of thousands of square miles of this country. It is fed from the highlands near the eastern coast where the rainfall is between forty and eighty inches a year. We taste some of the water as it pours out of the well, but it tastes salty. The cattle do very well on it, however. The people drink rain water which they collect in *cisterns* as it runs off the roofs.

How are cattle taken to market? While we are at the watering place, we see a great cloud of dust toward the west. Soon we see a "mob" of cattle, as the Australians call their herds, coming toward the watering place. Mr. Howell says that the stockmen have been rounding them up and sorting out some to take to market. They will be driven on foot to the railroad 200 miles distant.

It will take over two weeks for the cattle to arrive there. The law does not allow cattle to be driven more than twelve miles a day. They will graze along the way on a wide strip of land that has been set apart for the purpose. This is called a *Travel Stock Route*.



The most important exports are wool, hides, meat, and wheat. But another product is very valuable, too.

What valuable mineral is found in Australia? Gold is found in every state in Australia. Can you find the city of Kalgoorlie (kāl·gōor'lē), the center of the gold-mining industry? Gold was discovered in Victoria, Australia, in 1851. Many large nuggets were found on top of the ground! Shortly after 1900, Kalgoorlie became known as the "Klondike of Australia." The gold mines of this continent have yielded many millions of dollars' worth of the yellow metal and will probably yield more in the future.

The following day we are up early. We bid good-by to Mr. Howell and thank him for his kindness. Then we are in the air, bound for Brisbane.

What are some of the important cities of Australia? There are six important cities and each one is the capital of the state in which it is located.

We have already visited Sydney, which is the capital of New South Wales. We shall soon arrive at Brisbane, the capital of Queensland. This city is the center of Australia's meat-packing industry.



Australia has thousands of square miles of valuable forests which have never been touched. The heavy logs must be pulled out of the forests by long trains of sweating oxen.

Courtesy Australian National Travel Association

tance—Darwin. It is the capital of the Northern Territory, which is not a state.

What do we wish to remember about Australia? As our ship carries us from Brisbane to the East Indies, we review what we have learned about Australia.

Australia and the United States are about the same size, but Australia has a population of only about 7,500,000. Almost half of the people live in six large cities.

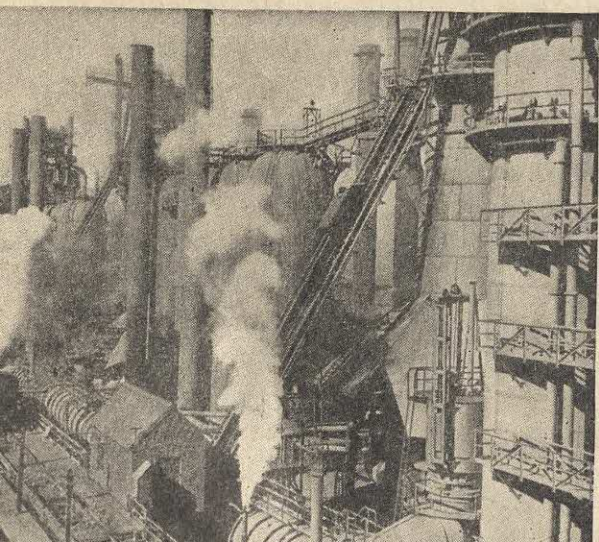
This land was first settled by English convicts, but later free land and the discovery of gold brought many more people to the continent. At first the various parts of Australia were colonies of England. Now they are united as the *Commonwealth of Australia*, a part of the British Commonwealth of Nations. The capital is at Canberra.

Most of the people live in the southeastern section of the continent where there is sufficient rainfall for crops. Most of the central part of the continent is a vast desert region.

Australia's most important product is the wool of her 120,000,000 sheep. Wheat is her largest grain crop. Many cattle are raised in the drier sections, where they can be watered by means of artesian wells. Gold is the most important mineral found on the continent.

Just before World War II Australia began to develop her manufacturing industries. Automobiles, farm implements, and all kinds of machinery are made in Australian cities. This is a steel mill in one of these cities.

Courtesy Australian News and Information Bureau



Rice is a very important food crop in Java. Here we see some Javanese farmers transplanting rice in the flooded fields, where it grows best.

Screen Traveler from Gendreau



THE EAST INDIES—JEWELS OF THE ORIENT

After Australia has faded from view, we look at our maps to trace our journey to the East Indies. Let us learn the names of some of the larger islands of the East Indies. To the north and west of Australia we see New Guinea (gĭn'ī), the Celebes (sĕl'ĕ·bĕz), Borneo, Sumatra (soō·mä'trā), and Java, our next stop. We notice that the equator crosses Borneo, Sumatra, and the Celebes. These islands are in the equatorial belt. What does this tell us about their climate?

We examine our map once more and notice the long line of islands that begins with Sumatra and runs south and east. This group of islands is really a great chain of volcanoes, many of them still active. Most of the people who live on these islands dwell on the lowlands along the shores and in the fertile mountain valleys.

What is the history of the East Indies? We remember that these are the Indies that stirred the imaginations of the people of the Old World during the days of the early explorers. They were known to Europeans then as the Spice

Islands, because they were the source of the pepper, nutmeg, cinnamon, mace, and cloves with which people flavored their food. There were no refrigerators in those days to keep food fresh and tasty. Spices from the East Indies were therefore in great demand to cover up the unpleasant taste of meat that wasn't fresh. This suggests one of the many advantages we enjoy today that earlier people knew nothing of.

The first Europeans to visit these islands were the Portuguese. They had reached these lands by sailing around South Africa. A little later the Spaniards came, and then the Dutch and the English. Today we find that most of the islands are governed by the Dutch. Check your maps and see which islands are governed by Great Britain, Australia, and Portugal.

What do we find at Batavia? Our boat docks at Batavia, the largest city in the East Indies. Ashore we are befriended by a Dutch engineer, Mr. Vandemeer, who has lived in this city for many years. We are interested in the

clothes our new friend is wearing—white short-sleeved shirt, white shorts, white knee-length socks, and white shoes. We learn that he wears this tropical outfit the year round.

Mr. Vandemeer drives his car slowly through the city, threading his way through the heavy traffic of two-wheeled pony carts and numerous bicycles. We see that the most common type of taxi in Batavia is a tricycle with a covered chair supported by the two rear wheels.

Many natives are wearing a type of hat known as a *fez*. "Those are members of the Mohammedan faith," Mr. Vandemeer explains. "Nine out of ten of the natives of the East Indies are Mohammedans. This religion was brought to these islands by Arab traders before the coming of the Europeans.

"Batavia has more than a half million inhabitants," our friend continues. "It is the largest city in the East Indies. There are about 47,000,000 Malayan natives on Java and many thousands of Chinese and Hindus. Only about 200,000 Europeans live on the island. With about 900 people per square mile, Java is one of the most densely populated regions in the world."

We learn that the European inhabitants, like our friend, work from early morning to early afternoon. After eating lunch, they nap during the hot hours of the afternoon. The families spend their evenings bicycling, going to the movies, or entertaining at home.

"My house," Mr. Vandemeer says, "is a stone-and-stucco house with a red-tiled roof and brown-tiled floors. Our bathroom is completely tiled. I mention it especially because in the tropics the bathroom is one of the most important rooms in the house. You can't imagine how refreshing a bath is on a hot day.

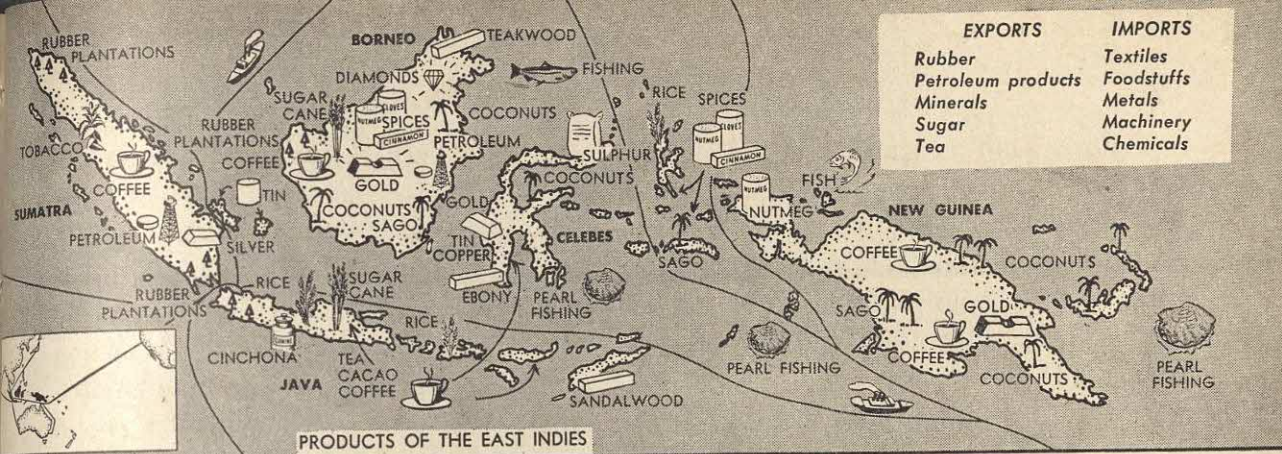
"Most of the dwellings in Java, however, are not as elaborate as our home. They are bamboo houses with thatched roofs. The natives also like to bathe frequently. As you walk along the rivers and canals, you'll often hear the shouts of native children playing in the water while their mothers do the family wash upstream.

"We buy many of the things we need at the outdoor markets or from peddlers," Mr. Vandemeer says. "Peddlers are continually going up and down the streets, and my wife has only to lean from her window to buy food, flowers,



This is the home of a native family in Sumatra, an island of the East Indies. Notice the sharply pointed gables and the strange decorations. In what ways is this home different from the homes we live in.

Paul's Photos



The East Indies are really "treasure islands." Early explorers searched for routes to the Indies to bring back gold and spices, but today the greatest treasure of the East Indies is petroleum.

charcoal, and even furniture. The charcoal is used as fuel for cooking. Other peddlers carry tools. They look for work repairing shoes, electrical appliances, and other articles."

How do the natives live? As we drive through the surrounding countryside, we see many native women in brightly colored sarongs walking along the road, some balancing baskets on their heads. We are surprised to find that some Javanese men also wear sarongs.

"The natives weave and dye most of the beautiful sarongs you see them wearing," Mr. Vandemeer says. "First they brush melted wax over all of the cloth except the parts to be dyed in a certain color. After the wax has hardened, the cloth is dipped in the dye, which colors only the wax-free design. Then the wax is boiled out, and the process is repeated for every other color used. Sometimes one piece of cloth is dyed as many as twenty-five times. These pieces of *batik* work have a brilliance and richness which has never been matched anywhere in the world."

The distance from the easternmost to the westernmost islands of the East Indies is almost one-sixth of the way around the earth.

Near most of the native dwellings we pass are neat little gardens. We see some women cooking outside their homes. Occasionally we see Javanese children feeding chickens and pigs in the yard, and other children riding on the backs of water buffaloes.

Mr. Vandemeer says that the natives enjoy life. They have many festivals and dances at planting time and after the rice harvests.

Our friend tells us that the volcanic soil of Java is very fertile, and agriculture is the main occupation of the Javanese. Because of the abundant rainfall—325 inches a year in some places—this is a good rice-growing region; and rice is the chief food of these people. The Dutch government has introduced irrigation in the drier regions of the East Indies so that there will be a sufficient amount of rice for the millions of native workers.

SIZE COMPARISON MAP



What kind of farms do we see in Java? As we drive through the green countryside, we pass many small villages with thatched houses and high-peaked rice barns set up on stilts. Most of the crops that these farmers grow are for their own use.

Some of the land is owned by Dutch companies. On these plantations the natives are hired to do the work under the direction of a white *overseer*.

We pass large plantations of sugar cane, rubber, rice, tea, coffee, cocoa beans, and *cinchona* (sĭn·kō'nā) trees. The bark of the cinchona tree yields *quinine* (kwī'nĭn), which we know is a medicine useful in treating malaria. These are some of the products that the East Indies furnish to the world.

How is rubber grown? The story of how the rubber plantations were developed is interesting. An Englishman secretly collected seeds of rubber trees in South America. They were taken to England and planted in hot houses. Later the young trees were shipped to British Malaya and the East Indies. Here the soil and climate is so favorable that the

trees grew even better than they had in far-off Brazil.

We stop at a rubber plantation to watch the natives work. We see that they *tap* the rubber trees by removing a narrow strip of thin outer bark. From this cut in the bark comes a liquid called *latex* (lă'těks), which is collected in cups. A substance is put into the latex which causes it to thicken. It is then washed, rolled into sheets, and dried. In this form it is known as *crude* rubber.

What is the future of the East Indies? On the dock in Batavia, Mr. Vandemeer tells us that there has been great unrest in the East Indies since the end of World War II. Many of the natives on the islands claimed by the Netherlands wish to be entirely free. They want their own government.

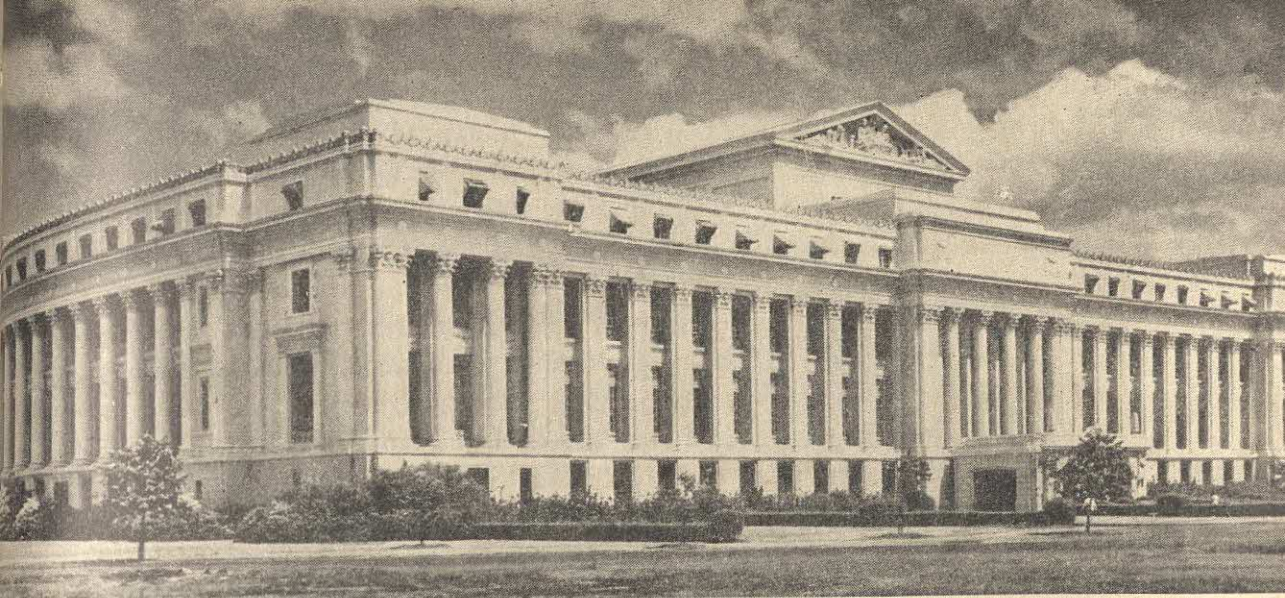
"Many of the native leaders in the East Indies," Mr. Vandemeer says, "are studying carefully what is happening in the country you will be visiting next—the Philippine Islands. It has been only a few years since the Philippines were given their freedom by the United States. Many of the natives of our islands are waiting to see whether the Filipinos can develop a strong nation.

"But no matter who governs the people of the East Indies, the products of these islands will continue to be important to the world. The rubber for your tires, the spices for your cooking, part of the coffee or cocoa that you drink, medicines to cure some of your diseases—all come from the East Indies."

Rubber is one of the most important products of the East Indies. Most of our supply of natural rubber comes from this part of the world. Here is a plantation worker tapping a rubber tree.

Brown Brothers





Acme

The Legislative Building in Manila is the center of the new government of the Philippine Islands. It was built during the administration of the Philippines by the United States.

THE PHILIPPINES—A NEW NATION

As we leave Batavia and start north, we do not need to look at our maps to know that we shall soon be crossing the equator. The sun is high overhead at midday, and the heat is *oppressive*. We pass hundreds of tiny islands, many of them so small that they do not even show on our maps. We sail between two of the largest islands of the East Indies, Sumatra and Borneo.

A little over five days out of Batavia we catch our first sight of the Philippines. There are over 7,000 islands in the Philippine archipelago. The two largest and most important are the island of Luzon, far to the north, and Mindanao, far to the south. Our ship is carrying us to Luzon, where we shall visit the Philippine capital, Manila.

As we sail into the great bay before Manila, we are told that these islands are volcanic in origin, and that some of the volcanoes are still active. We see high peaks—green in the sunlight—and

deep valleys. On our left is Bataan Peninsula, where American and Filipino troops fought so heroically before surrendering to the Japanese in the early days of World War II.

The signs of the war have not yet disappeared. In the harbor is the rusted hulk of a Japanese ship sunk by U.S. naval planes just before the Philippines were recaptured. Ashore we see scores of buildings pitted and scarred by shell and mortar fire. Piles of *rubble* in other spots help us to understand how fierce the fighting must have been. There are also many new buildings. We are happy to learn that the United States gave the Philippine people large sums of money in order to help them rebuild their war-damaged country.

In the beautiful white capitol building we meet a Mr. Detrick, who tells us that he has been teaching school in the Philippines for over thirty years. He will be our guide while we are here.

Why are we especially interested in the Philippines? We are very much interested in the Philippines because the United States governed these islands just a few years ago.

The Philippine Islands were discovered by Magellan in 1521. We remember that Magellan's expedition was the first to sail around the world. He did not complete the voyage himself, for he was killed in the Philippines.

Spain conquered the Philippine Islands in 1572, and within a few years Manila became the most important trading center in all the Orient. Merchants from China, Japan, the East Indies, Spain, and even far-off Mexico brought rich cargoes of spices, silks, pearls, slaves, fine woods, and wines to trade here.

Along with the early Spanish explorers and merchants came Catholic priests and missionaries. Does this early history of

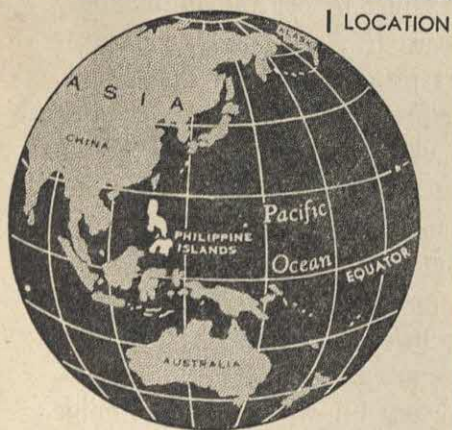
the Philippines help you to understand why Spanish, as well as English, is an official language here, and why most of the 18,000,000 inhabitants of the country are Roman Catholics?

The Spaniards continued to rule the islands until 1898. This was the year that Admiral Dewey defeated the Spanish fleet at Manila Bay at the beginning of the Spanish-American War. After the war the Spanish ceded the Philippine Islands to the United States.

How did the Philippines become an independent nation? Almost as soon as the United States took over the Philippines, a rebellion broke out. Many of the Filipinos did not want to be ruled by the United States. They wanted a free and independent country. But our government decided that the Filipinos would not be able to protect their country. So we put down the revolution and

THE STORY OF THE PHILIPPINES TOLD BY MAPS

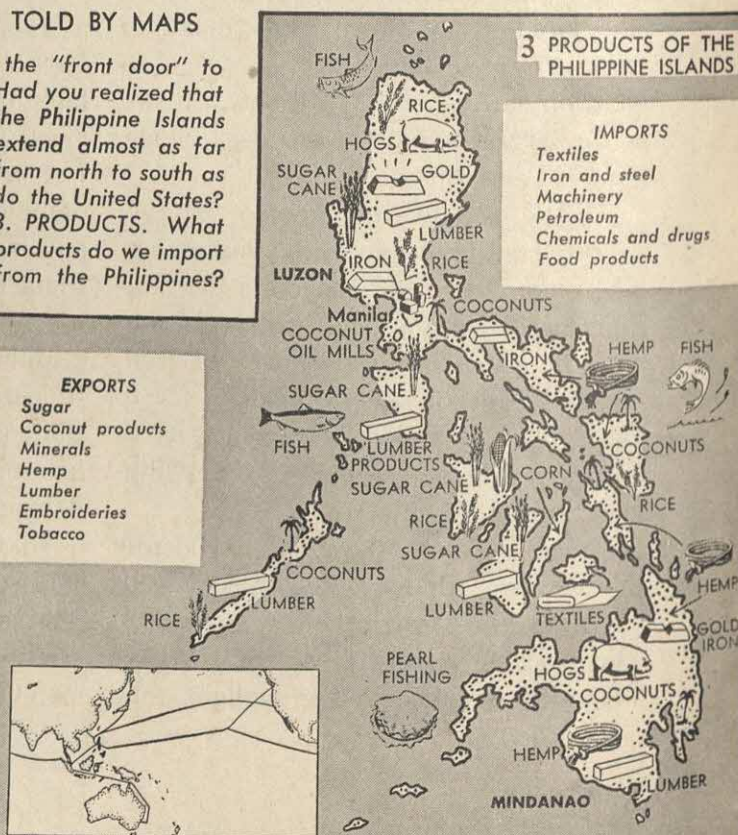
1. LOCATION. The Philippines guard the "front door" to southern Asia. 2. SIZE COMPARISON. Had you realized that the Philippine Islands extend almost as far from north to south as do the United States? 3. PRODUCTS. What products do we import from the Philippines?



EXPORTS
Sugar
Coconut products
Minerals
Hemp
Lumber
Embroideries
Tobacco

3 PRODUCTS OF THE PHILIPPINE ISLANDS

IMPORTS
Textiles
Iron and steel
Machinery
Petroleum
Chemicals and drugs
Food products



The carabao, or water buffalo, is usually a family pet as well as a beast of burden in Java. In all parts of the East Indies, these animals are used much as we use horses or mules. They are very strong, yet extremely gentle.

Ewing Galloway

set up a government for the Philippines.

Gradually the Filipinos proved themselves capable of taking over many of the duties of governing themselves. In time almost every official position in the government was held by a Filipino. Finally on July 4, 1946, the Philippine Islands became an independent nation—the *Commonwealth of the Philippines*.

What did the United States do for the Philippines? “The United States has helped the Filipinos in three important ways,” says Mr. Detrick. “First, we helped them build a fine school system. Now this school system is particularly valuable because all the schools teach English. Do you know that there are at least eight different languages and almost one hundred *dialects* spoken on the islands? Think of how difficult it would be for the people of one tribe to talk and trade with another if they didn’t have a common language like English!

“Second, we helped them by building roads and railroads. This encouraged trade among the provinces. Third, we introduced modern sanitation and modern medicine to fight hookworm, plagues, and tropical diseases.”

What is unusual about Manila? After spending a day in Manila—which is about the size of Seattle, Washington—we decide that it is really two cities in one. Part of it is very modern. The main business street is crowded with automobiles and the sidewalks are thronged with shoppers. Some of the men wear



white linen suits. Others have on work clothes. Many women look as if they had stepped out of an American dress shop, while the long full skirts of others remind us of Spanish America.

Many of the business buildings and hotels are as fine as any we have at home. Theaters are showing the latest films from Hollywood, and scores of signs advertise the same shoes, automobiles, soft drinks, cameras, and other articles we buy back in the States.

The other part of Manila looks quite different. This is the old Spanish section, built behind an ancient stone wall. There are many priests and nuns in this part of town, for here are the great Catholic churches, schools, and convents.

How do the people of the Philippines live? The next day we drive north out of Manila toward Baguio (bă'gê-ō'), which is the summer capital of the Philippines. In this hilly region the climate is finer than in the hot, sticky lowlands.

For miles north of Manila we speed along on a smooth concrete highway. On these flat lowlands the Filipinos are

working in their rice paddies and sugarcane fields. Many farms have small fish ponds where fish are grown for food.

We see native houses all along the way. They are made of bamboo and grass. Often they are built on posts three or four feet high to protect them from dampness in the rainy season.

"During the last war," Mr. Detrick says, "many of these Filipino farmers lost every bit of property they had, except their land. A list of possessions for a typical lowland farmer would go something like this: one *nipa palm* house; one carabao (kä'rä·bä'ō), or water buffalo; three pigs; twelve chickens; one pile of lumber; one sewing machine; one stack of bamboo poles; one plow; one large cooking pot; one rice barn; so many pounds of unthreshed rice."

The carabao looks somewhat like a steer, except that it has heavy, broad horns. It is a very useful animal to the Filipinos. It pulls their carts and plows their rice fields. No other draft animal is able to work so well in water. In fact, the carabao loves water and must have a swim every day to remain healthy. The Filipino children are especially fond of their carabaos and treat them as pets.

We pass through many small towns. In most of them the houses are very simple, often just nipa palm huts. However, many of them seem to have electricity. Most of the towns have a park in the center, usually with a bandstand and a statue in honor of some Filipino patriot. The village church and school are located near the square.

The Filipinos enjoy the holidays and other occasions when they have dances outdoors. Many of them remember the

celebrations that took place every time a village was liberated during the last war. They like American dancing.

Up near Baguio we slowly climb from the lowlands into the hills and mountains. The humidity is not so high, and we enjoy the bracing mountain air. We see off in the distances the wonderful rice terraces built on the steep mountainsides. Step on step they rise from the deep valleys. Mr. Detrick tells us that some of these terraces are 2,000 years old. It is almost unbelievable that they could have been built without the help of modern machinery.

What are some of the important products of the Philippines? Even on this short trip we see that agriculture is the most important occupation of the Filipinos. Most of the farms seem to be small, but there are some large plantations. The chief food crop is rice, but the most important crop for export is sugar. Most of this sugar is shipped to the United States.

Manila hemp is an especially interesting product. It is the fiber of a kind of banana plant and is used to make strong rope. The Philippines is one of the few places where Manila hemp is produced.

On our trip back to Manila we see forests with mahogany, teak, and rosewood trees. *Rattan* (rä·tän') and bamboo are found here also. The rattan is a climbing palm. Its slender stem sometimes grows several hundred feet long. It is used in baskets and *wickerwork*.

There is not much manufacturing done on the islands. Most of the manufactured goods that are used here come from the United States in exchange for products such as sugar and gold.

These terraces were built nearly 1,500 years ago. Water is led down the slopes from terrace to terrace so gently that no soil is carried away. In this way the natives have used land on the mountainsides which would otherwise be useless.

Ewing Galloway



What do we want to remember about the Philippines? "I think," says Mr. Detrick, "that there are several important things you should remember about the Philippines. These 7,000 volcanic islands lie in the equatorial belt, so the temperatures here are always high. Manila is the capital and most important city in the Islands. Rice is the most important food product, and sugar the most valuable export. A large part of the exports of the Philippines goes to the United States, and most manufactured goods come from the United States."

For more than 300 years the Philippine Islands were part of the Spanish Empire. In 1898, at the close of the Spanish-American War, Spain ceded the islands to the United States. During the following fifty years the United States has helped the Filipinos develop their schools and roads and improve the health of the people. In 1946 the Philippines were granted their independence.

Why is the granting of independence to the Philippines one of the important events of history? Throughout most of the past, powerful nations have fought wars and planted colonies in order to expand their empires. That was how the

British, Spanish, Dutch, and other empires were built up. The only way subject countries or colonies were ever able to win their independence was by rebellion and war. That was how the American colonies won their independence from Great Britain and the Spanish-American nations from Spain.

But during recent years democratic ideas of freedom have spread throughout all parts of the world. Because the people of Great Britain, the United States, and other democratic countries believe so strongly in freedom for themselves, they sympathize with the growing desire of their colonies to become free and independent. We have already seen that Canada, New Zealand, and Australia are now independent nations with only the slightest ties binding them to their mother country, England. Now the Philippines are also independent.

This same desire for freedom is growing in many other parts of the world. In years to come more and more of the subject peoples of the world will gain their freedom — especially from those countries, like Great Britain and the United States, that believe in freedom for everyone.

A little time remains before we must board the plane for our swift journey home. We have a long and interesting discussion with Mr. Detrick about our relations with the other countries on the western edge of the Pacific.

"For a long time," says Mr. Detrick, "few Americans were really interested in what happened in the Pacific or in Asia. They were all too busy building a nation at home.

"But now that the United States is responsible for the peace and safety of so many islands of the Pacific, it is important that we know something about our next-door neighbors in Asia. I hope that you will be able to study these lands, for what happens there is of great importance to the whole world."

We wish that we had time to study these lands right now, but that will have to wait for another year.

FLYING HOMEWARD

As we head eastward, we recall the interesting experiences we have had visiting our American neighbors. We have learned many things.

We have learned that all people have need of food, clothing, shelter, some means of transportation, recreation, and *security*. But they do not all eat the same kinds of food or wear the same kinds of clothing or build houses alike.

We have learned that what they eat, the kind of clothing they wear, and the kind of houses they build depend on the climate, the supply of food, the materials for building, the work the people do, and of course, their habits and customs.

People living in cold lands may wear fur clothes, live in driftwood houses, and eat fish and seal meat. Pacific islanders may wear loin cloths, live in thatched huts, and eat coconuts, yams, and octopuses. Canadian city dwellers may live much as we do, wearing about the same kinds of clothes, eating the same kinds of foods, living in similar houses, and

working in the same types of factories.

In other words, we have learned *where* people live and *why* they live as they do.

But perhaps we have learned something even more important. Almost everyone in the world needs the help of others in order to live a happy, useful life.

The Australian farmer needs a tractor while the English tractor manufacturer needs the Australian's wheat for his bread. The Polynesian islander wants cloth, and the North Carolina textile worker uses soap made with coconut oil. The Newfoundland fisherman catches fish for the New England factory worker, who makes knives for the Philippine farmer, who cuts hemp fiber to be made into rope for the Newfoundland fisherman.

If we have learned this—that all peoples must share the good things of the earth, and that we are dependent on each other for the things we need for a better life—then our year's study has been worth while.

YOUR ACTIVITY PROGRAM

You have learned about many different lands in this unit, from the mountains of New Zealand

to lush tropical islands. This section will help you to remember what you have learned.

Solving the Problems

A. *Recognizing the Problems*

1. How many problems are there in this unit? Write them in your notebook.
2. How many of the problems are about New Zealand? Australia? The East Indies? The Philippines? Do you think this shows anything about the importance of these different lands?

B. *Gaining the Understandings*

1. Answer as many of these questions as possible without looking back in your book.

How are Australia and New Zealand similar to the United States?

What two large islands are part of New Zealand?

Why is the climate of Auckland similar to that of San Francisco?

What are some of the customs of New Zealand which are different from ours?

What are the most important products of New Zealand?

Why did large numbers of people first come to New Zealand?

Who owns the banks and railroads in New Zealand?

What are the mountains of South Island? Who are the Maoris?

Which are more nearly the same, the areas of the United States and Australia or the size of their populations?

What are some of the sports enjoyed by the people of Australia?

Who first settled Australia?

How did the discovery of gold affect the population of Australia?

Why was Canberra built?

What is the connection between the rainfall and the population in Australia?

What is the chief mountain range of Australia? Why is it so named?

What is an important food crop grown and exported by Australia?

Why are flying doctors necessary?

Why do owners of sheep stations kill rabbits and dingoes?

What is Australia's most valuable product?

How is the wool cut from the sheep?

What are some of her strange animals?

How do the people of central and western Australia get their water?

How do Australian cattle travel to market?

What is the importance of Kalgoorlie?

Tasmania is named after whom?

Why did Europeans formerly need spices more than they do today?

People from what country of Europe discovered the East Indies?

What countries govern the East Indies today?

What is the largest city of the East Indies?

Why does rice grow so well in Java?

What else is grown on the plantations?

How were the rubber plantations developed?

Name the largest islands of the Philippines.

Why is Bataan Peninsula famous?

Who discovered the Philippine Islands?

When did the United States gain control of the Philippines?

When did the Philippines become independent?

How did the United States help the Philippines?

What are the two parts of Manila?

How is rice grown in the hills of the Philippines?

What are some of the important crops of the Philippine Islands?

Why is the new independence of the Philippines important?

2. Explain what these words mean:

artesian	koala
batik	latex
bush	lorry
carabao	Maori
cinchona	marsupial
cistern	Merino
cricket	mob
dialect	oppressive
dingo	outback
fez	overseer
interdependent	quinine
kangaroo	rattan
kelpie	reservoir

rubble	tap
security	Travel Stock Route
station	wickerwork

3. Be able to find these places on the map, and tell the importance of each:

Auckland	Manila
Batavia	Melbourne
Canberra	North Island
Darwin	Southern Alps
Java	Sydney
	Tasmania

Enriching the Understandings

1. Can you match correctly the Australian and American terms listed below?

removalist	real estate agent
docket	mover
spanner	14 pounds
caravan	chicken yard
fowl run	ticket office
machinist	sewing machine operator
booking office	sales slip
stone	trailer
letting agent	wrench

2. See if you can find the scientific explanation of why there are so many strange animals in Australia.
3. Add the flags and stamps of these lands to your collections.
4. Many interesting products come from this part of the world. Make a collection or a picture map of them.
5. Do some research about the Maoris and give a class report on what you learn.
6. Get some pictures of batik work and draw some designs of your own.
7. Look up the rules of cricket. To what American games is it similar? How does it differ from them?
8. See what you can find out about Canberra and the way it has been built. How do you like the plans for the city? How does it differ from Washington, D.C.?
9. Draw and write a picture story about raising sheep and making cloth from their wool.
10. What are the similarities and differences between cattle raising in Australia and the United States?
11. Have you read *Just So Stories* by Rud-

yard Kipling? Some of the stories are about Australia, and you might enjoy reading them.

12. The mysterious ruins of the temple of Angkor Wat in the East Indies are very interesting. Find pictures of them and read what is known about them.

13. Make a model of the rice terraces of the Philippines out of clay or moistened sand. How are these terraces similar to the contour plowing done by many American farmers?

14. The government of the Philippines is similar to the government of what other country?

Applying Your Knowledge

Write a short paper on the advantages and disadvantages of Philippine independence. Discuss its relation to the possible independence of other colonies in that part of the world.

Forming Opinions and Attitudes

1. Australia does not allow any immigrants except people of the white race. Her only dark-skinned inhabitants are the primitive "black-fellows" of the bush. Do you think that in this way Australia will avoid the problems of race prejudice and intolerance which are found in most countries where there are more than one race? Is this solution easier than that of Hawaii and Brazil, where people of many races and nationalities live together in peace and friendship?

2. You read that plantation agriculture is practiced in the East Indies. What are the advantages of this system? What are the disadvantages? Compare what you can find out about the East Indian plantations with the plantations of the old South in the United States.

3. The North American colony of Georgia was first settled by convicts, just as Australia was. Can you find out what crime many of these people had committed? Why do you suppose many of them were very successful here?

4. You learned at the end of this unit that all the peoples of the world depend upon each other. What does this make you think about wars? Does everyone have more to gain by keeping peace than by fighting wars? Would it help to keep peace if more people knew the things you have learned this year?

Books About Our American Neighbors

LATIN AMERICA

- Goetz, D., *Half a Hemisphere; the Story of Latin America*, Harcourt.
- Goetz, D., *Neighbors to the South*, Harcourt.
- Greenbie, S., *By Caribbean Shores; Panama, Colombia, and Venezuela*, Row Peterson.
- Quinn, V., *Picture Map Geography of Mexico, Central America, and the West Indies*, Lippincott.
- Shippen, K., *New Found World*, Viking. A history of Latin America. The final chapters deal with culture and present-day affairs.
- Shore, M., and Oblinger, M. M., *Hero of Darien; the Story of Vasco Nuñez de Balboa*, Longmans.
- Tomlinson, E., *The Other Americans*, Scribner.
- Van Loon, H. W., *Life and Times of Simón Bolívar*, Dodd Mead.
- Waugh, E. D., *Simón Bolívar; a Story of Courage*, Macmillan.

MEXICO

- Baker, N., *Juarez, Hero of Mexico*, Vanguard. Biography of the great patriot, the first civilian president of Mexico.
- Banks, H., *Story of Mexico*, Stokes.
- Brenner, A., *Boy Who Could Do Anything, and Other Mexican Folk Tales*, W. R. Scott.
- Campbell, C., *Star Mountain, and Other Legends of Mexico*, McGraw-Hill.
- Castillo, C., *Mexico*, Wheeler. A Burton Holmes travel story.
- Hogner, D., *Children of Mexico*, Heath.
- Lang, A., *The Conquest of Montezuma's Empire*, Longmans.
- Ross, P. F., *In Mexico They Say*, Knopf. Fourteen old folk tales about saints, animals, elves, princes, and princesses.

CENTRAL AMERICA

- Goetz, D., *Letters from Guatemala*, Heath.
- Greenbie, S., *Central Five: Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica,*

- Row Peterson. Brief description of backgrounds and present-day developments, with emphasis on relations with the United States.
- Nicolay, H., *Bridge of Water; the Story of Panama and the Canal*, Appleton.
- Rothery, A., *Central American Roundabout*, American. Tells how the people live, and describes the dances, pilgrimages, and holidays which they celebrate.
- Von Hagen, V. W., *Riches of Central America*, Heath. Stories of some of the products of Central America.

SOUTH AMERICA

- Adams, R. C., *Sky High in Bolivia*, Heath. A picture of Indian life in Bolivia.
- Baker, N. B., *He Wouldn't Be King; the Story of Simón Bolívar*, Vanguard.
- Beebe, W., *Jungle Peace*, Holt. Experiences of a noted naturalist in the jungles of South America.
- Brown, R. J., *Land and People of Brazil*, Lippincott.
- Dagleish, A., *They Live in South America*, Scribner.
- Dagleish, A., *Wings Around South America*, Scribner. A report of a trip around South America made by the author and artist, who wrote and made sketches along the way.
- Desmond, A. C., *Jorge's Journey; a Story of the Coffee Country of Brazil*, Macmillan.
- Desmond, A. C., Malkus, A. S., and Wood, E., *Boys of the Andes*, Heath. Stories about three boys.
- Eels, E., *South America's Story*, Dodd Mead. A history, from the legendary period to modern times.
- Finger, C. J., *Tales from Silver Lands*, Doubleday. Nineteen legendary tales taken at first hand from the Indians.
- Fleming, P., *Rico the Young Rancher*, Heath. Word pictures of city and ranch life of Chile.
- Gill, R., and Hoke, H., *Story of the Other America*, Houghton. A pictorial history of South America.

- Greenbie, S., *Between Mountain and Sea*, Row Peterson. A "Good Neighbor Series" book about Chile.
- Greenbie, S., *Children of the Sun; Peru, Ecuador, and Bolivia*, Row Peterson.
- Greenbie, S., *Fertile Land; Brazil*, Row Peterson.
- Greenbie, S., *Republics of the Pampas; Argentina, Uruguay, and Paraguay*, Row Peterson.
- Haefner, R., *Brazil, Land of Surprises*, Lyons.
- Hager, A., *Brazil, Giant to the South*, Macmillan.
- Hager, A., *Wings Over the Americas*, Macmillan. Personal observations of the air transport systems of the countries to the south of us.
- Lansing, M. F., *Against All Odds; Pioneers of South America*, Doubleday.
- Lansing, M. F., *Liberators and Heroes of South America*, Page.
- Lovelace, M. H., and D. W., *Golden Wedge; Indian Legends of South America*, Crowell.
- Malkus, A., *Along the Inca Highway*, Heath. Interesting stories of several heroes of Peru.
- Malkus, A., *Citadel of a Hundred Stairways*, Winston. The story of a lost gold mine, a mysterious hermit, and a journey to a Peruvian temple.
- Pollock, K. G., *The Gaucho's Daughter*, Heath. A Gaucho and his family feel lost in big Buenos Aires.
- Von Hagen, V. W., *Riches of South America*, Heath. Useful information about some of the products of South America.
- Waldeck, J. B., *Exploring the Jungle*, Heath. Learn about Indians of British Guiana, and of some of the things they make.
- Waldeck, T. J., *The White Panther*, Viking. The setting of this story is in the jungles of British Guiana.
- Williams, H. L., *Kimbi, Indian from the Jungle*, Heath. Indian life in the jungles of Ecuador.
- Follett, H., *Magic Portholes*, Scribner. The author and her fourteen-year-old daughter spend a year traveling by cargo boat, tramp steamer, and liner to the West Indies, the Panama Canal, and islands of the South Seas.
- Hoffman, E., *Four Friends*, Macmillan. Funny escapades of a pig, a hen, a parrot, and a dog in Puerto Rico.
- Lee de Muñoz Marín, M., *Pioneers of Puerto Rico*, Heath.

THE ATLANTIC

- Arason, S., *Golden Hair*. Macmillan. A little girl visits her grandmother in Iceland.
- Arason, S., *Smoky Bay*, Macmillan. The story of a small boy in Iceland.
- Brindze, R., *The Gulf Stream*, Vanguard.
- Bunce, W. H., *Dragon Prows Westward*, Harcourt Brace.
- Coblentz, C. C., *Falcon of Eric the Red*, Longmans.
- Colum, P., *Voyagers, Being a Romance of Atlantic Discovery*, Macmillan.
- Duvoisin, R., *They Put Out to Sea*, Knopf.
- Fox, F. M., *They Sailed and Sailed*, Dutton.
- French, A., *Story of Grettir the Strong*, Dutton.
- Hall, J., *Viking Tales*, Rand McNally.
- Peary, M., *Snowbaby's Own Story*, Lippincott.
- Thorp, L. H., *Down to the Sea*, MacBride.

CANADA

- Averell, E., *Voyages of Jacques Cartier*, Viking.
- Bell, E. C., *Madeleine Takes Command*, McGraw.
- Bonner, M., *Made in Canada*, Knopf.
- Bonner, M., *Canada and Her Story*, Knopf.
- Boswell, H., *French Canada*, Viking.
- Bowman, J. C., *Winabojo, Master of Life*, Whitman.
- Buchan, J., *Lake of Gold*, Houghton.
- Choate, F., and Curtis, E., *The Crimson Shawl, a Story of a Girl from Acadia*, Lippincott.
- Pinkerton, K. S., *Windigo*, Harcourt.
- Pinkerton, K. S., *Farther North*, Harcourt.
- Strack, L., *Crossing Canada*, Harper.
- Tharp, L. H., *Champlain, Northwest Voyager*, Little.
- Courlander, H., *Uncle Bouqui of Haiti*, Morrow. Funny stories collected from the native storytellers.
- Follett, H., *Islands on Guard*, Scribner. The islands that protect the approaches to the Panama Canal.

THE WEST INDIES

ALASKA AND THE NORTHLAND

- Bell, M. E., *Enemies in Icy Strait*, Morrow.
 Bell, M. E., *Pirates of Icy Strait*, Morrow.
 Coe, D., *Road to Alaska*, Messner.
 Darling, E. B., *Baldy of Nome*, Penn.
 Desmond, A. C., *Sea Cats*, Macmillan.
 Gail, A., and Crew, F., *Top of the World*, Oxford.
 Hatch, A., and Oliver, S., *Son of the Smoky Sea*, Messner.
 Hayes, F. S., *Eskimo Hunter*, Random House.
 Lathrop, W., *Northern Trail Adventure*, Random House.
 MacCracken, H., *Sentinel of the Snow Peaks*. A story of the Alaskan wild, Lippincott.
 Meader, S., *Trap-lines North*, Dodd.
 O'Brien, J. S., *Silver Chief, Dog of the North*, Winston.
 O'Brien, J. S., *Return of Silver Chief*, Winston.
 Skinner, C. L., *Red Man's Luck*, Coward-McCann.
 Skinner, C. L., *Roselle of the North*, Macmillan.
 Stefansson, V., and Irwin, V. M., *Kak, the Copper Eskimo*, Macmillan.

THE PACIFIC AND ITS ISLANDS

- Berge, V., and Lanier, H. W., *Pearl Diver, adventures over and under the South Seas*, Doubleday.
 Borden, C., *Oceania*, Holliday.
 Carveth, L., *Jungle Boy*, Longmans.
 Colum, P., *Legends of Hawaii*, Yale University Press.
 Cormack, M., *Road to Down Under*, Appleton.
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THE AMERICAS AT A GLANCE

(Data for Latin-American republics based on report of the Statistical Division of the Pan American Union)

Country	Area in Square Miles	Population	Capitals and Leading Cities	Population	Principal Exports
Argentina.....	1,079,965	13,318,320	Buenos Aires* Córdoba.....	2,345,221 311,832	Wheat, corn, linseed, oats, barley, flour, frozen and chilled meats, hides, skins, wool, butter, cotton, quebracho extract, and wood.
Bolivia.....	419,470	3,457,000	Rosario..... Cochabamba..... La Paz*.....	511,007 37,519 250,000	Tin, silver, tungsten, lead, copper, zinc, and gold.
Brazil.....	3,286,170	45,002,176	Sucré*..... Recife..... Rio de Janeiro*..... São Paulo..... São Salvador.....	29,875 510,102 1,896,998 1,217,330 363,726	Coffee, cotton, hides and skins, cocoa, oranges, canned meats, lumber, chilled and frozen meats, and tobacco.
British Guiana.....	89,480	333,000	Georgetown*.....	66,000	Sugar, bauxite, and diamonds.
British Honduras.....	8,598	56,000	Belize*.....	17,000	Mahogany, chicle, and tropical fruits.
British West Indies (including Bermuda).....	12,630	2,236,000	Kingston*.....	141,000	Bananas, sugar and molasses, coffee, cocoa, dogwood, and asphalt.
Canada.....	3,694,863	11,120,000	Hamilton..... Montreal..... Ottawa*..... Quebec..... Toronto..... Vancouver..... Winnipeg.....	155,547 818,577 126,872 130,594 631,207 246,593 218,785	Lumber, apples, iron and steel, dried fish, newsprint, wood pulp, wheat, flour, copper, nickel, and furs.
Chile.....	286,396	5,016,449	Concepción..... Santiago*..... Valparaíso.....	77,589 829,830 193,205	Copper, nitrate, gold and silver, wool, iron ore, lentils, beans, hides, iodine, and fresh fruits.
Colombia.....	439,828	8,701,816	Barranquilla..... Bogotá*..... Cali..... Cartagena..... Medellín..... Limón..... San José*.....	145,000 330,312 115,000 105,000 150,000 16,540 78,883	Coffee, gold, petroleum, bananas, cattle hides, platinum, and tobacco.
Costa Rica.....	23,000	639,197	San José*.....	135,126	Coffee, bananas, gold, and tuna fish.
Cuba.....	44,164	4,227,597	Camagüey..... Havana*..... Holguín..... Santiago de Cuba..... Ciudad Trujillo*.....	568,913 137,016 104,729 71,297	Raw sugar, refined sugar, molasses, tobacco, cigars, bananas, copper and iron ore, manganese, sponges, henequen, and honey.
Dominican Republic.....	19,325	1,655,779	Santiago.....	33,919	Sugar, cocoa, coffee, tobacco, corn, molasses, cattle, and bananas.
Ecuador.....	(exact area undetermined)	2,921,688	Cuenca..... Guayaquil..... Quito*..... San Salvador*..... Santa Ana.....	45,497 139,886 215,021 102,316 41,914	Cocoa, petroleum, coffee, gold, rice, bananas, tagua nuts, hats, rubber, hides and skins, and balsa wood.
El Salvador.....	13,176	1,744,535			Coffee, gold and silver, sugar, balsam, and henequen.

*Denotes capital.

Data for Latin-American republics based on report of the Statistical Division of the Pan American Union)

*Denotes capital.

OUR OTHER NEIGHBORS AT A GLANCE

Country	Area in Square Miles	Population	Capitals and Leading Cities	Population	Principal Exports
OUR NEIGHBORS IN THE ATLANTIC					
Greenland	840,000	18,431			Cryolite, hides and furs.
Iceland	39,708	130,356	Reykjavik*	42,815	Fish and fish oil, wool.
OUR NEIGHBORS IN THE PACIFIC					
Australia	2,974,581	7,448,601	Sydney	1,384,380	Wool, meats, wheat, hides and skins.
			Melbourne	1,152,000	
			Canberra*	12,000	
			Suva*	15,552	Sugar, corn, cacao, fruit, gold, copper, iron, cotton.
			Honolulu*	179,326	
			Batavia*	437,433	Rubber, oil, sugar, tin, tea, spices, tobacco.
			Noumea*	11,108	Coffee, cotton, guano, nickel, chromium, copra.
					Fruit, copra, coffee, cocoa, gold, silver.
			Auckland	263,575	Dairy products, meat, wool, hides, skins and tallow.
			Wellington*	172,887	
			Manila*	673,000	Sugar, coconut products, minerals, hemp.
			Cebu	155,100	
					Copra, cacao, bananas.
OUR NEIGHBORS IN THE PACIFIC					
Atlantic Neighbors	879,708	1,48,787			
Pacific Neighbors	5,141,395	98,522,705			
*Denotes capital.					

Index and Pronunciation Guide

The following index and pronunciation guide will show the pupils where to find the information given in this book and how to pronounce words that are new to them. It will also be useful to teachers in suggesting a wide range of research topics suitable for individual or class assignment.

KEY TO ABBREVIATIONS

Italic letters before page references tell what to look for: *m.* stands for map; *p.* stands for picture; *d.* stands for diagram or chart.

KEY TO PRONUNCIATION

ä bāthe, Dāyton
 â vācation, alwāys
 â bâre, compāre
 ä bād, Mādison
 â fāther, Hārtford
 â bâth, grāsp
 â âlone, Americā
 ě bē, Tolēdo
 ê bēlong, Dētroit
 ě yēs, Mēxico
 ě bakēr, Vērmon't
 ĩ bite, Ohīo

ĩ bīt, Michīgan
 ō gōld, Ohīo
 ố ômit, Cōlumbus
 ô nōrth, Yōrk
 ố blōt, Cōlorado
 ồ sōon, Altōona
 ồ gōod, Brōoklyn
 ou mouse, south
 oi oil, Detroit
 ũ ũse, Bermūda
 ũ ũnite, natūrāl
 ũ hūrry, Pittsbūrgh

ũ bŭt, Kentŭcky
 ũ circŭs, Boston (tŭn)
 g gun, Galveston
 n a nasal sound which may be produced by saying *long* without sounding the *g*. It occurs in the pronunciation of certain Portuguese words, such as *Belém* (bā·lēs').
 th then, Alvarado (tho)

If only one syllable of a word is accented, a heavy mark (') indicates the syllable which should be stressed. If two syllables are accented, the one to be given the greater stress is indicated by a heavy mark (') and the other by a light mark (').

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